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20may98 14:40:09 User208760 Session D1035.1		
\$0.03	0.001 Hrs	File1
\$0.03	Estimated cost	File1
\$0.03	Estimated cost	this search
\$0.03	Estimated total session cost	0.001 Hrs.

File 410:Chronolog(R) 1981-1998/May
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? begin 55,72,154,399,351

20may98 14:40:29 User208760 Session D1035.2		
\$0.00	0.005 Hrs	File410
\$0.00	Estimated cost	File410
\$0.00	Estimated cost	this search
\$0.03	Estimated total session cost	0.007 Hrs.

SYSTEM:OS - DIALOG OneSearch

File 55:BIOSIS PREVIEWS(R) 1985-1998/May W2
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Set	Items	Description
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? s	(flt3(w)L or flt3(w)ligand)	
	859	FLT3
	1103274	L
	36	FLT3(W)L
	859	FLT3
	191723	LIGAND
	563	FLT3(W) LIGAND
S1	570	(FLT3(W)L OR FLT3(W) LIGAND)
? s s1	and	stimulat?

	570	S1
	1181028	STIMULAT?
S2	327	S1 AND STIMULAT?
? s s2	and	(vivo or patient? or administer?)

Processing

	327	S2
	577065	VIVO
	3264170	PATIENT?
	373967	ADMINISTER?
S3	107	S2 AND (VIVO OR PATIENT? OR ADMINISTER?)
? rd s3		

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...examined 50 records (50)
 ...examined 50 records (100)
 ...completed examining records
 S4 60 RD S3 (unique items)
 ? t s4/3/all

4/3/1 (Item 1 from file: 55)
 DIALOG(R)File 55:BIOSIS PREVIEWS(R)
 (c) 1998 BIOSIS. All rts. reserv.

14130886 BIOSIS Number: 01130886
 The effect of different thawing methods, growth factor combinations and media on the ex vivo expansion of umbilical cord blood primitive and committed progenitors

Kogler G; Callejas J; Sorg R V; Fischer J; Migliaccio A R; Wernet P
 Bone Marrow Donor Cent., Build. 14.80, Med. Cent., Heinrich Heime Univ.
 Dusseldorf, Moorenstr. 5, 40225 Duesseldorf, Germany
 Bone Marrow Transplantation 21 (3). 1998. 233-241.

Full Journal Title: Bone Marrow Transplantation
 ISSN: 0268-3369
 Language: ENGLISH
 Print Number: Biological Abstracts Vol. 105 Iss. 007 Ref. 089760

4/3/2 (Item 2 from file: 55)
 DIALOG(R)File 55:BIOSIS PREVIEWS(R)
 (c) 1998 BIOSIS. All rts. reserv.

14067061 BIOSIS Number: 01067061
Preferential expansion of myeloid-type dendritic cells *in vivo*
after administration of GM-CSF into mice: A comparative analysis with
Flt3 ligand generated dendritic cells
Brasel K; Maraskovsky E; Pulendran B; Teepe M; Pettit D; Nightlinger N;
Shortman K D; Robb L; Williams D E
Immunex Corporation, Seattle, WA, USA
Blood 90 (10 SUPPL. 1 PART 1). 1997. 170A.
Full Journal Title: 39th Annual Meeting of the American Society of
Hematology, San Diego, California, USA, December 5-9, 1997. Blood
ISSN: 0006-4971
Language: ENGLISH
Document Type: CONFERENCE PAPER
Print Number: Biological Abstracts/RRM Vol. 050 Iss. 002 Ref. 029469

4/3/3 (Item 3 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

14042876 BIOSIS Number: 01042876
Antibodies to VLA4 integrin mobilize long-term repopulating cells and
augment cytokine-induced mobilization in primates and mice
Craddock C F; Nakamoto B; Andrews R G; Priteley G V; Papayannopoulou T
Box 357710, Hematol., Univ. Washington, Seattle, WA 98195, USA
Blood 90 (12). 1997. 4779-4788.
Full Journal Title: Blood
ISSN: 0006-4971
Language: ENGLISH
Print Number: Biological Abstracts Vol. 105 Iss. 003 Ref. 029434

4/3/4 (Item 4 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

14009690 BIOSIS Number: 01009690
Flt3 ligand enhances the yield of primitive cells after ex
vivo cultivation of CD34+ CD38-dim cells and Cd34+ CD38-dim CD33-dim
HLA-DR+ cells
Dooley D C; Xiao M; Oppenlander B K; Plunkett J M; Lyman S D
Pacific Northwest Regional Blood Serv., American Red Cross, PO Box 3200,
Portland, OR 97208, USA
Blood 90 (10). 1997. 3903-3913.
Full Journal Title: Blood
ISSN: 0006-4971
Language: ENGLISH
Print Number: Biological Abstracts Vol. 105 Iss. 001 Ref. 009690

4/3/5 (Item 5 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

13755641 BIOSIS Number: 99755641
New understanding of the pathogenesis of CML: A prototype of early
neoplasia
Clarkson B D; Strife A; Wisniewski D; Lambek C; Carpino N
Memorial Sloan-Kettering Cancer Cent., 1275 York Ave., New York, NY
10021, USA
Leukemia (Basingstoke) 11 (9). 1997. 1404-1428.
Full Journal Title: Leukemia (Basingstoke)
ISSN: 0887-6924
Language: ENGLISH

4/3/6 (Item 6 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

13753884 BIOSIS Number: 99753884

FLT3 ligand induces the generation of functionally active dendritic cells in mice

Shurin M R; Pandharipande P P; Zorina T D; Haluszczak C; Subbotin V M; Hunter O; Brumfield A; Storkus W J; Maraskovsky E; Lotze M T
Biol. Therapeutics Program, Univ. Pittsburgh Cancer Inst., Pittsburgh, PA 15213, USA

Cellular Immunology 179 (2). 1997. 174-184.

Full Journal Title: Cellular Immunology

ISSN: 0008-8749

Language: ENGLISH

Print Number: Biological Abstracts Vol. 104 Iss. 009 Ref. 128665

4/3/7 (Item 7 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

13748242 BIOSIS Number: 99748242

Increased recruitment of hematopoietic progenitor cells underlies the **ex vivo** expansion potential of **FLT3 ligand**

Haylock D N; Horsfall M J; Dowse T L; Ramshaw H S; Niutta S; Protosaltis S; Peng L; Burrell C; Rappold I; Buhning H-J; Simmons P J
Leukaemia Res. Unit, Inst. Medical Vet. Sci., PO Box 14, Rundle Mall, Adelaide, SA 5000, Australia

Blood 90 (6). 1997. 2260-2272.

Full Journal Title: Blood

ISSN: 0006-4971

Language: ENGLISH

Print Number: Biological Abstracts Vol. 104 Iss. 009 Ref. 123023

4/3/8 (Item 8 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

13725841 BIOSIS Number: 99725841

Effect of **flt3 ligand** on in vitro expansion of colony-forming bone marrow cells from **patients** with aplastic anemia

Wodnar-Filipowicz A; Chklovskaya E; Krieger M S; Manz C Y; Lyman S D; Toksoz D; Nissen C

Dep. Res., Univ. Hosp., Basel, Switzerland

Experimental Hematology (Charlottesville) 25 (8). 1997. 901.

Full Journal Title: 26th Annual Meeting of the International Society for Experimental Hematology, Cannes, France, August 24-28, 1997. Experimental Hematology (Charlottesville)

ISSN: 0301-472X

Language: ENGLISH

Document Type: CONFERENCE PAPER

Print Number: Biological Abstracts/RRM Vol. 049 Iss. 010 Ref. 177951

4/3/9 (Item 9 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

13725827 BIOSIS Number: 99725827

Thrombopoietin-**stimulated ex vivo** expansion of megakaryocyte

progenitors of human cord blood
Garetto L; Severino A; Sanavio F; Gammaitoni L; Aglietta M; Piacibello W
Dep. Biomedical Sci. Hum. Oncol., Torino Med. Sch., Univ. Torino, Torino,
Italy

Experimental Hematology (Charlottesville) 25 (8). 1997. 897.
Full Journal Title: 26th Annual Meeting of the International Society for
Experimental Hematology, Cannes, France, August 24-28, 1997. Experimental
Hematology (Charlottesville)
ISSN: 0301-472X
Language: ENGLISH
Document Type: CONFERENCE PAPER
Print Number: Biological Abstracts/RRM Vol. 049 Iss. 010 Ref. 177937

4/3/10 (Item 10 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

13725510 BIOSIS Number: 99725510
Ex vivo expanded human CD34+ progenitor cells retain their
primitive cell adhesion molecule profile when co-cultured with porcine
microvascular endothelial cells and exposed to cytokines
Chute J P; Kampen R L; Saini A A; Wells M R; Davis T A
Naval Med. Res. Inst., Bethesda, MD, USA
Experimental Hematology (Charlottesville) 25 (8). 1997. 807.
Full Journal Title: 26th Annual Meeting of the International Society for
Experimental Hematology, Cannes, France, August 24-28, 1997. Experimental
Hematology (Charlottesville)
ISSN: 0301-472X
Language: ENGLISH
Document Type: CONFERENCE PAPER
Print Number: Biological Abstracts/RRM Vol. 049 Iss. 010 Ref. 177620

4/3/11 (Item 11 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

13725289 BIOSIS Number: 99725289
Flt3 ligand, MGDF, Epo and G-CSF are critical cytokines for
ex vivo expansion of hematopoietic cell compartments in the presence
of SCF, IL-3 and IL-6
Douay L; Kobari L; Giarratana M C; Poloni A; Firat H; Labopin M; Gorin N
C

CHU Saint-Antoine, INSERM U417, Hopital Trousseau Paris, Paris, France
Experimental Hematology (Charlottesville) 25 (8). 1997. 740.
Full Journal Title: 26th Annual Meeting of the International Society for
Experimental Hematology, Cannes, France, August 24-28, 1997. Experimental
Hematology (Charlottesville)
ISSN: 0301-472X
Language: ENGLISH
Document Type: CONFERENCE PAPER
Print Number: Biological Abstracts/RRM Vol. 049 Iss. 010 Ref. 177399

4/3/12 (Item 12 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

13709947 BIOSIS Number: 99709947
Antitumor activity and immunotherapeutic properties of **Flt3-**
ligand in a murine breast cancer model
Chen K; Braun S; Lyman S; Fan Yi; Traycoff C M; Wiebke E A; Gaddy J;
Sledge G; Broxmeyer H E; Cornetta K
Div. Hematology/Oncology, Dep. Med., Indiana Univ. Sch. Med., IB442, 975

West Walnut St., Indianapolis, IN 46202, USA
Cancer Research 57 (16). 1997. 3511-3516.
Full Journal Title: Cancer Research
ISSN: 0008-5472
Language: ENGLISH
Print Number: Biological Abstracts Vol. 104 Iss. 007 Ref. 101452

4/3/13 (Item 13 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

13654022 BIOSIS Number: 99654022
Effect of **flt3 ligand** on in vitro growth and expansion of colony-forming bone marrow cells from **patients** with aplastic anemia
Wodnar-Filipowicz A; Chklovskaja E; Manz C Y; Lyman S D; Nissen C
Dep. Res., Univ. Hosp. Basel, Hebelstrasse 20, CH-4031 Basel, Switzerland
Experimental Hematology (Charlottesville) 25 (7). 1997. 573-581.
Full Journal Title: Experimental Hematology (Charlottesville)
ISSN: 0301-472X
Language: ENGLISH
Print Number: Biological Abstracts Vol. 104 Iss. 005 Ref. 062421

4/3/14 (Item 14 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

13653937 BIOSIS Number: 99653937
In **vivo** effects of Flt3-Flk2 ligand on mobilization of hematopoietic progenitors in primates and potent synergistic enhancement with granulocyte colony-**stimulating** factor
Papayannopoulou T; Nakamoto B; Andrews R G; Lyman S D; Lee M Y
Div. Hematol., Univ. Washington, Seattle, WA 98195, USA
Blood 90 (2). 1997. 620-629.
Full Journal Title: Blood
ISSN: 0006-4971
Language: ENGLISH
Print Number: Biological Abstracts Vol. 104 Iss. 005 Ref. 062336

4/3/15 (Item 15 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

13639649 BIOSIS Number: 99639649
Selective expansion of primitive normal hematopoietic cells in cytokine-supplemented cultures of purified cells from **patients** with chronic myeloid leukemia
Petzer A L; Eaves C J; Barnett M J; Eaves A C
Terry Fox Lab., 601 W. 10th Ave., Vancouver, BC V5Z 1L3, Canada
Blood 90 (1). 1997. 64-69.
Full Journal Title: Blood
ISSN: 0006-4971
Language: ENGLISH
Print Number: Biological Abstracts Vol. 104 Iss. 004 Ref. 048048

4/3/16 (Item 16 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

13551395 BIOSIS Number: 99551395
Megakaryocyte growth and development factor (MGDF)-induced acute leukemia cell proliferation and clonal growth is associated with functional c-mpl

Piacibello W; Sanavio F; Brizzi M F; Garetto L; Severino A; Aronica M G;
Dragonetti G; Aglietta M; Pegoraro L
Clinica Med. I, Dep. Biomedical Sciences Human Oncology, Via Genova 3,
10126 Torino, Italy
Leukemia (Basingstoke) 11 (4). 1997. 531-540.
Full Journal Title: Leukemia (Basingstoke)
ISSN: 0887-6924
Language: ENGLISH
Print Number: Biological Abstracts Vol. 103 Iss. 012 Ref. 174823

4/3/17 (Item 17 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

13543813 BIOSIS Number: 99543813
Thrombopoietin augments ex vivo expansion of human cord
blood-derived hematopoietic progenitors in combination with stem cell
factor and **flt3 ligand**
Ohmizono Y; Sakabe H; Kimura T; Tanimukai S; Matsumura T; Miyazaki H;
Lyman S D; Sonoda Y
Dep. Hygiene, Kyoto Prefectural University Med., Kawaramachi-Hirokoji,
Kamigyoku, Kyoto 602, Japan
Leukemia (Basingstoke) 11 (4). 1997. 524-530.
Full Journal Title: Leukemia (Basingstoke)
ISSN: 0887-6924
Language: ENGLISH
Print Number: Biological Abstracts Vol. 103 Iss. 012 Ref. 167241

4/3/18 (Item 18 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
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13543611 BIOSIS Number: 99543611
'Stem cell candidates' purified by liquid culture in the presence of
Steel factor, IL-3, and 5FU are strictly stroma-dependent and have myeloid,
lymphoid and megakaryocytic potential
Bertolini F; Battaglia M; Soligo D; Corsini C; Curioni C; Lazzari L;
Pedrazzoli P; Thalmeyer K
Div. di Oncol. Med., Fondazione Maugeri, Paiva Med. Cent., Viale Boezio
26, 27100 Pavia PV, Italy
Experimental Hematology (Charlottesville) 25 (4). 1997. 350-356.
Full Journal Title: Experimental Hematology (Charlottesville)
ISSN: 0301-472X
Language: ENGLISH
Print Number: Biological Abstracts Vol. 103 Iss. 012 Ref. 167039

4/3/19 (Item 19 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
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13353930 BIOSIS Number: 99353930
Flt3 ligand: A novel dendritic cell (DC)-stimulating
cytokine that induces tumor regression and anti-tumor immune responses in
vivo
Lynch D H; Andreasen A; Miller R E; Schuh J C L
Immunex Corp., Seattle, WA, USA
Blood 88 (10 SUPPL. 1 PART 1-2). 1996. 437A.
Full Journal Title: Thirty-eighth Annual Meeting of the American Society
of Hematology, Orlando, Florida, USA, December 6-10, 1996. Blood
ISSN: 0006-4971
Language: ENGLISH
Document Type: CONFERENCE PAPER

4/3/20 (Item 20 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

13353119 BIOSIS Number: 99353119
FLT3 ligand preferentially **stimulates** normal immature progenitor (Philadelphia negative) in chronic myeloid leukemia (CML)
Mahon F X; Pigeonnier V; Chahine H; Barbot C; Jazwiec B; Ripoche J; Reiffers J
Lab. Greffe de Moelle, UMR CNRS 5540, Universite Bordeaux 2, Bordeaux, France
Blood 88 (10 SUPPL. 1 PART 1-2). 1996. 234A.
Full Journal Title: Thirty-eighth Annual Meeting of the American Society of Hematology, Orlando, Florida, USA, December 6-10, 1996. Blood
ISSN: 0006-4971
Language: ENGLISH
Document Type: CONFERENCE PAPER
Print Number: Biological Abstracts/RRM Vol. 049 Iss. 002 Ref. 026011

4/3/21 (Item 21 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

13330494 BIOSIS Number: 99330494
Flt3 ligand level reflects hematopoietic progenitor cell function in aplastic anemia and chemotherapy-induced bone marrow aplasia
Wodnar-Fillipowicz A; Lyman S D; Gratwohl A; Tichelli A; Speck B; Nissen C
Research Dep., Univ. Hosp. Basel, Hebelstr. 20, CH-4031 Basel, Switzerland
Blood 88 (12). 1996. 4493-4499.
Full Journal Title: Blood
ISSN: 0006-4971
Language: ENGLISH
Print Number: Biological Abstracts Vol. 103 Iss. 003 Ref. 033608

4/3/22 (Item 22 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
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13330404 BIOSIS Number: 99330404
Retroviral transduction of human progenitor cells: Use of granulocyte colony-stimulating factor plus stem cell factor to mobilize progenitor cells in **vivo** and **stimulation** by Flt3-Flk-2 ligand in vitro
Elwood N J; Zogos H; Willson T; Begley C G
Rotary Bone Marrow Research Lab., Post Office, Royal Melbourne Hosp., Parkville, VIC 3050, Australia
Blood 88 (12). 1996. 4452-4462.
Full Journal Title: Blood
ISSN: 0006-4971
Language: ENGLISH
Print Number: Biological Abstracts Vol. 103 Iss. 003 Ref. 033518

4/3/23 (Item 23 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

13319465 BIOSIS Number: 99319465
Dramatic increase in the numbers of functionally mature dendritic cells

in **Flt3 ligand**-treated mice: Multiple dendritic cell subpopulations identified
Maraskovsky E; Brasel K; Teepe M; Roux E R; Lyman S D; Shortman K; McKenna H J
Immunex Corporation, 51 University St., Seattle, WA 98101, USA
Journal of Experimental Medicine 184 (5). 1996. 1953-1962.
Full Journal Title: Journal of Experimental Medicine
ISSN: 0022-1007
Language: ENGLISH
Print Number: Biological Abstracts Vol. 103 Iss. 002 Ref. 022579

4/3/24 (Item 24 from file: 55)
DIALOG(R) File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

13292474 BIOSIS Number: 99292474
Flt3 ligand stimulates proliferation and inhibits apoptosis of acute myeloid leukemia cells: Regulation of Bcl-2 and Bax
Lisovsky M; Estrov Z; Zhang X; Consoli U; Sanchez-Williams G; Snell V; Munker R; Goodacre A; Savchenko V; Andreeff M
Sect. Mol. Hematol. Therapy, Box 81, Univ. Tex. M. D. Anderson Cancer Center, 1515 Holcombe Blvd., Houston, TX 77030, USA
Blood 88 (10). 1996. 3987-3997.
Full Journal Title: Blood
ISSN: 0006-4971
Language: ENGLISH
Print Number: Biological Abstracts Vol. 103 Iss. 001 Ref. 007946

4/3/25 (Item 25 from file: 55)
DIALOG(R) File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

13249033 BIOSIS Number: 99249033
Expression of type III receptor tyrosine kinases FLT3 and KIT and responses to their ligands by acute myeloid leukemia blasts
Stacchini A; Fubini L; Severino A; Sanavio F; Aglietta M; Piacibello W
Clin. Med. I, Dep. of Biomed. Sci. and Human Oncol., via Genova 3, 10126 Torino, Italy
Leukemia (Basingstoke) 10 (10). 1996. 1584-1591.
Full Journal Title: Leukemia (Basingstoke)
ISSN: 0887-6924
Language: ENGLISH
Print Number: Biological Abstracts Vol. 102 Iss. 011 Ref. 164663

4/3/26 (Item 26 from file: 55)
DIALOG(R) File 55:BIOSIS PREVIEWS(R)
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13172952 BIOSIS Number: 99172952
Ex vivo expansion of hematopoietic stem-progenitor cells in serum free, stoma free conditions: The interest of **FLT3 ligand**, MGFDF and G-CSF
Douay L; Poloni A; Kobari L; Giarratana M-C; Firat H; Gorin N C
CHU St Antoine, Paris, France
Experimental Hematology (Charlottesville) 24 (9). 1996. 1039.
Full Journal Title: 25th Annual Meeting of the International Society for Experimental Hematology, New York, New York, USA, August 23-27, 1996.
Experimental Hematology (Charlottesville)
ISSN: 0301-472X
Language: ENGLISH
Document Type: CONFERENCE PAPER
Print Number: Biological Abstracts/RRM Vol. 048 Iss. 010 Ref. 179555

4/3/27 (Item 27 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

13085357 BIOSIS Number: 99085357
Differential cytokine effects on primitive (CD34+CD38-) human
hematopoietic cells: Novel responses to **Flt3-ligand** and
thrombopoietin
Petzer A L; Zandstra P W; Piret J M; Eaves C J
Terry Fox Lab., 601 West 10th Avenue, Vancouver, BC V5Z 1L3, Canada
Journal of Experimental Medicine 183 (6). 1996. 2551-2558.
Full Journal Title: Journal of Experimental Medicine
ISSN: 0022-1007
Language: ENGLISH
Print Number: Biological Abstracts Vol. 102 Iss. 004 Ref. 050806

4/3/28 (Item 28 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

12178203 BIOSIS Number: 98778203
Effects of **Flt3 ligand** on human leukemia cells. I.
Proliferative response of myeloid leukemia cells
Dehmel U; Zaborski M; Meierhoff G; Rosnet O; Birnbaum D; Ludwig W D;
Quentmeier H; Drexler H G
German Collection Microorganisms Cell Cultures, Mascheroder Weg 1 B,
D-38124 Braunschweig, Germany
Leukemia (Basingstoke) 10 (2). 1996. 261-270.
Full Journal Title: Leukemia (Basingstoke)
ISSN: 0887-6924
Language: ENGLISH
Print Number: Biological Abstracts Vol. 101 Iss. 010 Ref. 145395

4/3/29 (Item 29 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

12146168 BIOSIS Number: 98746168
Effects of **Flt3 ligand** and interleukin-7 on in vitro growth
of acute lymphoblastic leukemia cells
Eder M; Hemmati P; Kalina U; Ottmann O G; Hoelzer D; Lyman S D; Ganser A
Klinikum der J.W. Goethe Univ., Zentrum der Inneren Medizin, Med. Klinik
III, Theodor-Stern Kai 7, 60590 Frankfurt, Germany
Experimental Hematology (Charlottesville) 24 (2). 1996. 371-377.
Full Journal Title: Experimental Hematology (Charlottesville)
ISSN: 0301-472X
Language: ENGLISH
Print Number: Biological Abstracts Vol. 101 Iss. 009 Ref. 130443

4/3/30 (Item 30 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

12097900 BIOSIS Number: 98697900
Expression of the hematopoietic growth factor receptor FLT3 (STK-1-Flk2)
in human leukemias
Carow C E; Levenstein M; Kaufmann S H; Chen J; Amin S; Rockwell P; Witte
L; Borowitz M J; Civin C I; Small D
Johns Hopkins Oncol. Cent., 600 N. Wolfe St., Room 3-109, Baltimore, MD
21287-5001, USA

Blood 87 (3). 1996. 1089-1096.
Full Journal Title: Blood
ISSN: 0006-4971
Language: ENGLISH
Print Number: Biological Abstracts Vol. 101 Iss. 007 Ref. 098181

4/3/31 (Item 31 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

12022623 BIOSIS Number: 98622623

Ex **vivo** expansion of megakaryocytic progenitor cell (CFU-MK) in serum free conditions: The interest of **FLT3 ligand**, MGDF and G-CSF

Poloni A; Kobari L; Firat H; Giarratana M C; Gorin N C; Douay L
CHU Saint-Antoine, Paris, France
Blood 86 (10 SUPPL. 1). 1995. 702A.

Full Journal Title: 37th Annual Meeting of the American Society of Hematology, Seattle, Washington, USA, December 1-5, 1995. Blood

ISSN: 0006-4971

Language: ENGLISH

Document Type: CONFERENCE PAPER

Print Number: Biological Abstracts/RRM Vol. 048 Iss. 002 Ref. 026966

4/3/32 (Item 32 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

12022580 BIOSIS Number: 98622580

FLT3 ligand (FL) and kit ligand (KL) maintain long-term culture initiating cells (LTIC) during ex **vivo** expansion of CD34+ CD39-dim cells

Dooley D C; Oppenlander B K; Plunkett J M

American Red Cross, Pacific Northwest Regional Blood Serv., Portland, OR, USA

Blood 86 (10 SUPPL. 1). 1995. 691A.

Full Journal Title: 37th Annual Meeting of the American Society of Hematology, Seattle, Washington, USA, December 1-5, 1995. Blood

ISSN: 0006-4971

Language: ENGLISH

Document Type: CONFERENCE PAPER

Print Number: Biological Abstracts/RRM Vol. 048 Iss. 002 Ref. 026923

4/3/33 (Item 33 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

12021815 BIOSIS Number: 98621815

Synergistic effects in **vivo** of **FLT3 ligand** with GM-CSF or G-CSF in mobilization of colony forming cells in mice

Brasel K; McKenna H J; Charrier K; Morrissey P; Williams D E; Lyman S D
Immunex Corp., Seattle, WA, USA

Blood 86 (10 SUPPL. 1). 1995. 499A.

Full Journal Title: 37th Annual Meeting of the American Society of Hematology, Seattle, Washington, USA, December 1-5, 1995. Blood

ISSN: 0006-4971

Language: ENGLISH

Document Type: CONFERENCE PAPER

Print Number: Biological Abstracts/RRM Vol. 048 Iss. 002 Ref. 026158

4/3/34 (Item 34 from file: 55)

DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

12021512 BIOSIS Number: 98621512

In **in vivo** administration of **FLT3 ligand** but not G-CSF nor GM-CSF results in the generation of large numbers of dendritic cells in mice

Maraskovsky E; McKenna H J; Brasel K; Tepee M; Roux E; Lyman S D; Williams D E

Immunex Corp., Seattle, WA, USA
Blood 86 (10 SUPPL. 1). 1995. 423A.

Full Journal Title: 37th Annual Meeting of the American Society of Hematology, Seattle, Washington, USA, December 1-5, 1995. Blood

ISSN: 0006-4971

Language: ENGLISH

Document Type: CONFERENCE PAPER

Print Number: Biological Abstracts/RRM Vol. 048 Iss. 002 Ref. 025855

4/3/35 (Item 35 from file: 55)

DIALOG(R)File 55:BIOSIS PREVIEWS(R)

(c) 1998 BIOSIS. All rts. reserv.

12009415 BIOSIS Number: 98609415

Effects of human **FLT3 ligand** on myeloid leukemia cell growth: Heterogeneity in response and synergy with other hematopoietic growth factors

Piacibello W; Fubini L; Sanavio F; Brizzi M F; Severino A; Garetto L; Stacchini A; Pegoraro L; Aglietta M
Clin. Med. I, Depo. Biomed. Sci. Human Oncol., Via Genova 3, 10126 Torino, Italy

Blood 86 (11). 1995. 4105-4114.

Full Journal Title: Blood

ISSN: 0006-4971

Language: ENGLISH

Print Number: Biological Abstracts Vol. 101 Iss. 003 Ref. 037120

4/3/36 (Item 36 from file: 55)

DIALOG(R)File 55:BIOSIS PREVIEWS(R)

(c) 1998 BIOSIS. All rts. reserv.

12003570 BIOSIS Number: 98603570

Plasma-serum levels of **flt3 ligand** are low in normal individuals and highly elevated in **patients** with Fanconi anemia and acquired aplastic anemia

Lyman S D; Seaberg M; Hanna R; Zappone J; Brasel K; Abkowitz J L; Prchal J T; Schultz J C; Shahidi N T

Immunex Corp., 51 University St., Seattle, WA 98101, USA

Blood 86 (11). 1995. 4091-4096.

Full Journal Title: Blood

ISSN: 0006-4971

Language: ENGLISH

Print Number: Biological Abstracts Vol. 101 Iss. 003 Ref. 031275

4/3/37 (Item 37 from file: 55)

DIALOG(R)File 55:BIOSIS PREVIEWS(R)

(c) 1998 BIOSIS. All rts. reserv.

11958347 BIOSIS Number: 98558347

Effect of **flt3 ligand** on the **ex vivo** expansion of human CD34+ hematopoietic progenitor cells

McKenna H J; De Vries P; Brasel K; Lyman S D; Williams D E
Immunex Corp, 51 University St., Seattle, WA 98101, USA

Blood 86 (9). 1995. 3413-3420.
Full Journal Title: Blood
ISSN: 0006-4971
Language: ENGLISH
Print Number: Biological Abstracts Vol. 101 Iss. 001 Ref. 001152

4/3/38 (Item 38 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

11838556 BIOSIS Number: 98438556
Role of **FLT3 ligand** in the ex vivo amplification of
G-CSF-mobilized CD34+CD45RA- hematopoietic progenitors
Carlo-Stella C; Mangoni L; Garau D; Regazzi E; Almici C; Rizzoli V
Bone Marrow Transplantation Unit, Univ. Parma, Parma, Italy
Experimental Hematology (Charlottesville) 23 (8). 1995. 846.
Full Journal Title: 24th Annual Meeting of the International Society for
Experimental Hematology, Duesseldorf, Germany, August 27-31, 1995.
Experimental Hematology (Charlottesville)
ISSN: 0301-472X
Language: ENGLISH
Document Type: CONFERENCE PAPER
Print Number: Biological Abstracts/RRM Vol. 047 Iss. 010 Ref. 170311

4/3/39 (Item 1 from file: 72)
DIALOG(R)File 72:EMBASE
(c) 1998 Elsevier Science B.V. All rts. reserv.

10701359 EMBASE No: 98139039
Flt 3 ligand, MGDF, epo and G-CSF enhance ex vivo expansion of
hematopoietic cell compartments in the presence of SCF, IL-3 and IL-6
Kobari K.; Giaratana M.C.; Poloni A.; Firat H.; Labopin M.; Gorin N.C.;
Douay L.
Prof. L. Douay, Service d'Hematologie Biologique, Hopital Armand
Trousseau, 26 avenue du Docteur Arnold Netter, 75012 Paris France
Bone Marrow Transplantation (United Kingdom), 1998, 21/8 (759-767)
CODEN: BMTRE ISSN: 0268-3369
DOCUMENT TYPE: Journal Article
LANGUAGES: ENGLISH SUMMARY LANGUAGES: ENGLISH
NUMBER OF REFERENCES: 50

4/3/40 (Item 2 from file: 72)
DIALOG(R)File 72:EMBASE
(c) 1998 Elsevier Science B.V. All rts. reserv.

10590435 EMBASE No: 98012123
Stroma-contact prevents loss of hematopoietic stem cell quality during ex
vivo expansion of CD34+ mobilized peripheral blood stem cells
Breems D.A.; Blokland E.A.W.; Siebel K.E.; Mayen A.E.M.; Engels L.J.A.;
Ploemacher R.E.
Dr. R.E. Ploemacher, Institute of Hematology, Erasmus University
Rotterdam, P.O. Box 1738, 3000 DR Rotterdam Netherlands
Blood (United States), 1998, 91/1 (111-117)
CODEN: BLOOA ISSN: 0006-4971
DOCUMENT TYPE: Journal Article
LANGUAGES: ENGLISH SUMMARY LANGUAGES: ENGLISH
NUMBER OF REFERENCES: 33

4/3/41 (Item 3 from file: 72)
DIALOG(R)File 72:EMBASE
(c) 1998 Elsevier Science B.V. All rts. reserv.

10574080 EMBASE No: 97384245

Induction of dendritic cells (DC) by **Flt3 ligand** (FL)
promotes the generation of tumor-specific immune responses in vivo
Lynch D.H.

D.H. Lynch, Department of Immunobiology, Immunex Corporation, 51
University Street, Seattle, WA 98101 United States
Critical Reviews in Immunology (United States) , 1997, 18/1-2 (99-107)
CODEN: CCRID ISSN: 1040-8401
DOCUMENT TYPE: Journal Conference Paper
LANGUAGES: ENGLISH SUMMARY LANGUAGES: ENGLISH
NUMBER OF REFERENCES: 30

4/3/42 (Item 4 from file: 72)

DIALOG(R)File 72:EMBASE

(c) 1998 Elsevier Science B.V. All rts. reserv.

10229039 EMBASE No: 97032617

The effects of Flk-2/**flt3 ligand** as compared with c-kit
ligand on short-term and long-term proliferation of CD34+ hematopoietic
progenitors elicited from human fetal liver, umbilical cord blood, bone
marrow, and mobilized peripheral blood

Shapiro F.; Pytowski B.; Rafii S.; Witte L.; Hicklin D.J.; Yao T.J.;
Moore M.A.S.

Dr. F. Shapiro, Lab. of Developmental Hematology, Gynecology Oncology
Service, Memorial Sloan-Kettering Cancer Ctr., 1275 York Avenue, New York,
NY 10021 USA

Journal of Hematotherapy (USA) , 1996, 5/6 (655-662)

CODEN: JOEME ISSN: 1061-6128

DOCUMENT TYPE: Journal

LANGUAGES: English SUMMARY LANGUAGES: English

NUMBER OF REFERENCES: 19

4/3/43 (Item 5 from file: 72)

DIALOG(R)File 72:EMBASE

(c) 1998 Elsevier Science B.V. All rts. reserv.

10180538 EMBASE No: 96369336

Dramatic increase in the number of functionally mature dendritic cells in
Flt3 ligand -treated mice: Multiple dendritic cell
subpopulations identified

Maraskovsky E.; Brasel K.; Teepe M.; Roux E.R.; Lyman S.D.; Shortman K.;
McKenna H.J.

Immunex Corporation, 51 University St., Seattle, WA 98101 USA
Journal of Experimental Medicine (USA) , 1996, 184/5 (1953-1962)

CODEN: JEMEA ISSN: 0022-1007

LANGUAGES: English SUMMARY LANGUAGES: English

4/3/44 (Item 6 from file: 72)

DIALOG(R)File 72:EMBASE

(c) 1998 Elsevier Science B.V. All rts. reserv.

10161218 EMBASE No: 96349033

Cytokines at the research-clinical interface: Potential applications
Holyoake T.L.

Department of Haematology, Glasgow Royal Infirmary, 84 Castle Street,
Glasgow G4 0SF United Kingdom

Blood Reviews (United Kingdom) , 1996, 10/3 (189-200)

CODEN: BLORE ISSN: 0268-960X

LANGUAGES: English SUMMARY LANGUAGES: English

4/3/45 (Item 7 from file: 72)
DIALOG(R)File 72:EMBASE
(c) 1998 Elsevier Science B.V. All rts. reserv.

10096435 EMBASE No: 96285706
Hematologic effects of **flt3 ligand** in **vivo** in mice
Brasel K.; McKenna H.J.; Morrissey P.J.; Charrier K.; Morris A.E.; Chi Chang Lee; Williams D.E.; Lyman S.D.
Department of Molecular Genetics, Immunex Corp., 51 University St,
Seattle, WA 98101 USA
Blood (USA), 1996, 88/6 (2004-2012)
CODEN: BLOOA ISSN: 0006-4971
LANGUAGES: English SUMMARY LANGUAGES: English

4/3/46 (Item 8 from file: 72)
DIALOG(R)File 72:EMBASE
(c) 1998 Elsevier Science B.V. All rts. reserv.

9912486 EMBASE No: 96082437
Effects of **Flt3 ligand** and interleukin-7 on the vitro growth
of acute lymphoblastic leukemia cells
Eder M.; Hemmati P.; Kalina U.; Ottmann O.G.; Hoelzer D.; Lyman S.D.;
Ganser A.
J.W. Goethe Universitätsklinikum, Zentrum der Inneren Medizin, Med.
Klinik III, Theodor-Stern Kai 7, 60590 Frankfurt Germany
Experimental Hematology (USA), 1996, 24/2 (371-377)
CODEN: EXHEB ISSN: 0301-472X
LANGUAGES: English SUMMARY LANGUAGES: English

4/3/47 (Item 9 from file: 72)
DIALOG(R)File 72:EMBASE
(c) 1998 Elsevier Science B.V. All rts. reserv.

9775633 EMBASE No: 95334423
The effect of human flt-3 ligand on committed progenitor cell production
from normal, aplastic anaemia and Diamond-Blackfan anaemia bone marrow
Scopes J.; Daly S.; Ball S.E.; McGuckin C.P.; Gordon-Smith E.C.; Gibson
F.M.
Division of Haematology, Dept. of Cellular/Mol. Sciences, St. George's
Hospital Med. School, London SW17 0RE United Kingdom
British Journal of Haematology (United Kingdom), 1995, 91/3 (544-550)
CODEN: BJHEA ISSN: 0007-1048
LANGUAGES: English SUMMARY LANGUAGES: English

4/3/48 (Item 10 from file: 72)
DIALOG(R)File 72:EMBASE
(c) 1998 Elsevier Science B.V. All rts. reserv.

9452481 EMBASE No: 95012992
TNF-alpha, the great imitator: Role of p55 and p75 TNF receptors in
hematopoiesis
Jacobsen S.E.W.; Jacobsen F.W.; Fahlman C.; Rusten L.S.
Department of Immunology, Institute for Cancer Research, Norwegian Radium
Hospital, Oslo Norway
STEM CELLS (USA), 1994, 12/SUPPL. (111-126)
CODEN: STCEE ISSN: 1066-5099
LANGUAGES: English SUMMARY LANGUAGES: English

4/3/49 (Item 1 from file: 154)
DIALOG(R)File 154:MEDLINE(R)
(c) format only 1998 Dialog Corporation. All rts. reserv.

09490350 98201056

The potential role of **FLT3 ligand** in progenitor and primitive hematopoietic cell expansion.

Poloni A; Douay L; Giarratana MC; Kobari L; Gorin NC; Olivieri A; Leoni P
Clinica di Ematologia, Ospedale Torrette, Ancona, Italy.

Boll Soc Ital Biol Sper (ITALY) Mar-Apr 1997, 73 (3-4) p55-62, ISSN 0037-8771 Journal Code: ALS

Languages: ENGLISH

Document type: JOURNAL ARTICLE

4/3/50 (Item 2 from file: 154)

DIALOG(R) File 154:MEDLINE(R)

(c) format only 1998 Dialog Corporation. All rts. reserv.

09478992 98208268

Augmentation of dendritic cells in murine organ donors by **Flt3 ligand** alters the balance between transplant tolerance and immunity.

Stephens RJ; Fu F; Li W; Drakes ML; Lu L; Demetris AJ; Qian S; McKenna HJ; Thomson AW

Thomas E. Starzl Transplantation Institute and Department of Surgery, University of Pittsburgh, PA 15213, USA.

J Immunol (UNITED STATES) Dec 1 1997, 159 (11) p5483-91, ISSN 0022-1767 Journal Code: IFB

Contract/Grant No.: DK49745, DK, NIDDK

Languages: ENGLISH

Document type: JOURNAL ARTICLE

4/3/51 (Item 3 from file: 154)

DIALOG(R) File 154:MEDLINE(R)

(c) format only 1998 Dialog Corporation. All rts. reserv.

09323171 98039355

Acute leukemia in adults.

Minden M; Imrie K; Keating A

Division of Hematology, University of Toronto, Ontario, Canada.

Curr Opin Hematol (UNITED STATES) Jul 1996, 3 (4) p259-65, ISSN 1065-6251 Journal Code: CNO

Languages: ENGLISH

Document type: JOURNAL ARTICLE; REVIEW; REVIEW, TUTORIAL

4/3/52 (Item 4 from file: 154)

DIALOG(R) File 154:MEDLINE(R)

(c) format only 1998 Dialog Corporation. All rts. reserv.

09316915 97465478

Dendritic cells generated from the blood of **patients** with multiple myeloma are phenotypically and functionally identical to those similarly produced from healthy donors.

Pfeiffer S; Gooding RP; Apperley JF; Goldschmidt H; Samson D

Department of Haematology, Royal Postgraduate Medical School, Hammersmith Hospital, London, U.K.

Br J Haematol (ENGLAND) Sep 1997, 98 (4) p973-82, ISSN 0007-1048 Journal Code: AXC

Languages: ENGLISH

Document type: JOURNAL ARTICLE

4/3/53 (Item 5 from file: 154)

DIALOG(R) File 154:MEDLINE(R)

(c) format only 1998 Dialog Corporation. All rts. reserv.

09300066 98026144

In **vivo** administration of **flt3 ligand** markedly stimulates generation of dendritic cell progenitors from mouse liver.
Drakes ML; Lu L; Subbotin VM; Thomson AW
Thomas E. Starzl Transplantation Institute, University of Pittsburgh, PA 15213, USA.
J Immunol (UNITED STATES) Nov 1 1997, 159 (9) p4268-78, ISSN 0022-1767 Journal Code: IFB
Contract/Grant No.: DK49745, DK, NIDDK; AI41011, AI, NIAID
Languages: ENGLISH
Document type: JOURNAL ARTICLE

4/3/54 (Item 6 from file: 154)
DIALOG(R)File 154:MEDLINE(R)
(c) format only 1998 Dialog Corporation. All rts. reserv.

09181662 97454404
Ability of early acting cytokines to directly promote survival and suppress apoptosis of human primitive CD34+CD38- bone marrow cells with multilineage potential at the single-cell level: key role of thrombopoietin.
Borge OJ; Ramsfjell V; Cui L; Jacobsen SE
Blood Cell Growth Factors Laboratory, Hipple Cancer Research Center, Dayton, OH, USA.
Blood (UNITED STATES) Sep 15 1997, 90 (6) p2282-92, ISSN 0006-4971
Journal Code: A8G
Languages: ENGLISH
Document type: JOURNAL ARTICLE

4/3/55 (Item 7 from file: 154)
DIALOG(R)File 154:MEDLINE(R)
(c) format only 1998 Dialog Corporation. All rts. reserv.

09155306 97422542
Developmental pathways of dendritic cells in **vivo**: distinct function, phenotype, and localization of dendritic cell subsets in **FLT3 ligand**-treated mice.
Pulendran B; Lingappa J; Kennedy MK; Smith J; Teepe M; Rudensky A; Maliszewski CR; Maraskovsky E
Immunex Corporation, Seattle, WA 98101, USA. bpulendran@immunex.com
J Immunol (UNITED STATES) Sep 1 1997, 159 (5) p2222-31, ISSN 0022-1767 Journal Code: IFB
Languages: ENGLISH
Document type: JOURNAL ARTICLE

4/3/56 (Item 8 from file: 154)
DIALOG(R)File 154:MEDLINE(R)
(c) format only 1998 Dialog Corporation. All rts. reserv.

08910514 97092955
flt-3 ligand is more potent than c-kit ligand for the synergistic stimulation of ex **vivo** hematopoietic cell expansion.
Koller MR; Oxender M; Brott DA; Palsson BO
Aastrom Biosciences, Inc., Ann Arbor, MI 48106, USA.
J Hematother (UNITED STATES) Oct 1996, 5 (5) p449-59, ISSN 1061-6128
Journal Code: B3T
Contract/Grant No.: 2R44 DK45558-02, DK, NIDDK
Languages: ENGLISH
Document type: JOURNAL ARTICLE

4/3/57 (Item 9 from file: 154)

DIALOG(R)File 154:MEDLINE(R)
(c) format only 1998 Dialog Corporation. All rts. reserv.

08801691 96430857

The effect of STK-1 receptor (FLK2/FLT3) ligand on human erythropoiesis in vitro. Clinical implications]
Wplyw ligandu receptora STK-1 (FLK2/FLT3) na ludzka erytropoeze in vitro.
Implikacje kliniczne.

Ratajczak J; Marlicz W; Ratajczak MZ

Z Zakladu Patologii Komorki PAM w Szczecinie.

Pol Arch Med Wewn (POLAND) Nov 1995, 94 (5) p418-24, ISSN 0032-3772

Journal Code: PAV

Languages: POLISH Summary Languages: ENGLISH

Document type: JOURNAL ARTICLE English Abstract

4/3/58 (Item 1 from file: 399)

DIALOG(R)File 399:CA SEARCH(R)

(c) 1998 American Chemical Society. All rts. reserv.

126304920 CA: 126(23)304920y PATENT

Dendritic cell stimulatory factor

INVENTOR(AUTHOR): Brasel, Kenneth; Lyman, Stewart D.; Maraskovsky, Eugene
; McKenna, Hilary R.; Lynch, David H.

LOCATION: USA

ASSIGNEE: Immunex Corporation

PATENT: PCT International ; WO 9712633 A1 DATE: 19970410

APPLICATION: WO 96US15990 (19961003) *US 539142 (19951004)

PAGES: 21 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: A61K-045/05A;

A61K-039/12B; A61K-039/02B; A61K-039/00B; A01N-001/02B; C12N-005/00B

DESIGNATED COUNTRIES: AL; AU; BB; BG; BR; CA; CN; CZ; EE; GE; HU; IL; IS;
JP; KP; KR; LK; LR; LS; LT; LV; MG; MK; MN; MX; NO; NZ; PL; RO; SG; SI; SK;
TR; TT; UA; UZ; VN; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM

DESIGNATED REGIONAL: KE; LS; MW; SD; SZ; UG; AT; BE; CH; DE; DK; ES; FI;
FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; ML;
MR; NE; SN; TD; TG

4/3/59 (Item 1 from file: 351)

DIALOG(R)File 351:DERWENT WPI

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011235005

WPI Acc No: 97-212908/199719

XRAM Acc No: C97-068826

New retroviral packaging cell line for treating diseases - contains nucleic acid encoding a therapeutic polypeptide which is incorporated into quiescent cells, and new retroviral particles

Patent Assignee: MEDICAL RES COUNCIL (MEDI-N)

Inventor: CASIMIR C M; FIELDING A K; RUSSELL S J

Number of Countries: 074 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Main IPC	Week
WO 9712049	A1	19970403	WO 96GB2405	A	19960930	C12N-015/86	199719 B
AU 9671379	A	19970417	AU 9671379	A	19960930	C12N-015/86	199732

Priority Applications (No Type Date): GB 9519776 A 19950928

Filing Details:

Patent	Kind	Filing Notes	Application	Patent
WO 9712049	A1			

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU
CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV
MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US
UZ VN

Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GR IE IT KE

4/3/60 (Item 2 from file: 351)
 DIALOG(R)File 351:DERWENT WPI
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010106818

WPI Acc No: 95-008071/199502

Related WPI Acc No: 95-328263

XRAM Acc No: C95-002982

Isolated ligands for flt 3 receptors - useful for treating anaemia, AIDS and various cancers

Patent Assignee: IMMUNEX CORP (IMMV)

Inventor: BECKMANN M P; LYMAN S D

Number of Countries: 052 Number of Patents: 018

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Main IPC	Week
EP 627487	A2	19941207	EP 94303575	A	19940519	C12N-015/00	199502 B
WO 9428391	A1	19941208	WO 94US5365	A	19940512	G01N-001/34	199503
AU 9469877	A	19941220	AU 9469877	A	19940512	G01N-001/34	199512
			WO 94US5365	A	19940512		
ZA 9403490	A	19950329	ZA 943490	A	19940520	A61K-000/00	199519
AU 9520982	A	19950925	AU 9520982	A	19950307		199601
NO 9504735	A	19960123	WO 94US5365	A	19940512	C07K-014/475	199612
			NO 954735	A	19951123		
FI 9505646	A	19960123	WO 94US5365	A	19940512	C07K-000/00	199615
			FI 955646	A	19951123		
BR 9407073	A	19960827	BR 947073	A	19940512	G01N-001/34	199641
			WO 94US5365	A	19940512		
EP 627487	A3	19960821	EP 94303575	A	19940519	C12N-015/00	199641
US 5554512	A	19960910	US 9368394	A	19930524	C12N-015/19	199642
			US 93106463	A	19930812		
			US 93111758	A	19930825		
			US 93162407	A	19931203		
			US 94209502	A	19940307		
			US 94243545	A	19940511		
FI 9603373	A	19960829	WO 95US2886	A	19950307	C12N-000/00	199646
			FI 963373	A	19960829		
CZ 9503079	A3	19961016	CZ 953079	A	19940512	C07K-014/435	199648
JP 8511251	W	19961126	WO 94US5365	A	19940512	C07K-014/705	199708
			JP 95500715	A	19940512		
NZ 267541	A	19970624	NZ 267541	A	19940512	C07K-014/475	199732
			WO 94US5365	A	19940512		
CN 1125479	A	19960626	CN 94192225	A	19940512	G01N-001/34	199748
HU 74831	T	19970228	WO 94US5365	A	19940512	G01N-001/34	199748
			HU 953341	A	19940512		
AU 683472	B	19971113	AU 9469877	A	19940512	G01N-001/34	199803
KR 97701260	A	19970317	WO 95US2886	A	19950307	C12N-005/08	199813
			KR 96704751	A	19960829		

Priority Applications (No Type Date): US 94243545 A 19940511; US 9368394 A 19930524; US 93106463 A 19930812; US 93111758 A 19930825; US 93162407 A 19931203; US 94209502 A 19940307; US 95399404 A 19950306

Filing Details:

Patent Kind Filing Notes Application Patent

EP 627487 A2

Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LI LU MC

NL PT SE

WO 9428391 A1

Designated States (National): AT AU BB BG BR BY CA CH CN CZ DE DK ES FI

GB HU JP KP KR KZ LK LU LV MG MN MW NL NO NZ PL PT RO RU SD SE SK UA UZ

VN

Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL

OA	PT	SE			
AU	9469877	A	Based on	WO	9428391
AU	9520982	A		EP	627487
			Based on	WO	9524469
BR	9407073	A	Based on	WO	9428391
US	5554512	A	CIP of	US	9368394
			CIP of	US	93106463
			CIP of	US	93111758
			CIP of	US	93162407
			CIP of	US	94209502
JP	8511251	W	Based on	WO	9428391
NZ	267541	A	Based on	WO	9428391
HU	74831	T	Based on	WO	9428391
AU	683472	B	Previous Publ.	AU	9469877
			Based on	WO	9428391
KR	97701260	A	Based on	WO	9524469

Language, Pages: EP 627487 (E, 33); WO 9428391 (E, 60); ZA 9403490 (60); US
5554512 (22); JP 8511251 (74)

t s4/7/14,17,37,38,39,42

4/7/14 (Item 14 from file: 55)
DIALOG(R) File 55:BIOSIS PREVIEWS(R)
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13653937 BIOSIS Number: 99653937

In **vivo** effects of Flt3-Flk2 ligand on mobilization of hematopoietic progenitors in primates and potent synergistic enhancement with granulocyte colony-stimulating factor

Papayannopoulou T; Nakamoto B; Andrews R G; Lyman S D; Lee M Y

Div. Hematol., Univ. Washington, Seattle, WA 98195, USA

Blood 90 (2). 1997. 620-629.

Full Journal Title: Blood

ISSN: 0006-4971

Language: ENGLISH

Print Number: Biological Abstracts Vol. 104 Iss. 005 Ref. 062336

The Flt3 receptor is expressed in primitive hematopoietic cells and its ligand exerts proliferative effects on these cells in vitro in synergy with other cytokines. To expand on the functional properties of **Flt3 ligand** (FL) in **vivo** we treated nonhuman primates with FL and tested its ability to mobilize stem/progenitor cells when given alone or in combination with granulocyte colony-stimulating factor (G-CSF) treatment. FL alone (200 mu-g/kg/day) mobilizes progenitors with slow kinetics and with a peak effect at the end of 2 weeks of treatment. The spectrum of mobilized progenitors includes myeloid, lymphoid, megakaryocytic, and osteoclastogenic but a low proportion of burst-forming unit (BFU)e. Bone marrow (BM) studies before and during the treatment suggested that proliferative effects in BM may have preceded effects on peripheral blood mobilization. To assess the synergy of FL with G-CSF in mobilization of progenitors we used two schemes: one in which G-CSF was used for the last 5 days of a 12-day treatment with FL; the other in which both cytokines were given concurrently for 5 days only (FL, 200 mu-g/kg; G-CSF, 100 mu-g/kg). Both schemes yielded much higher progenitor mobilization levels (peak levels of colony-forming cells (CFSs) 41,000 to 95,000/mL blood) than observed with either FL (CFC 4,600 to 7,300/mL) or G-CSF (8,405 +/- 3,024/mL) used alone at the same doses. Furthermore, there was a progressive and significant expansion of progenitors in vitro during 2 weeks in suspension cultures of mononuclear cells or of CD34+ cells only in the animal with the combined treatment. Likewise, substantial mobilization of osteoclastogenic progenitors was documented only with the combined treatment. Given the functional properties of FL, its synergistic mobilization with G-CSF, and its anticipated good tolerance (because of the absence of an effect on mast cell activation), a clinical use is projected for this cytokine in peripheral blood transplantation settings, as well as in experiments with ex **vivo** gene transfer.

4/7/17 (Item 17 from file: 55)
DIALOG(R) File 55:BIOSIS PREVIEWS(R)
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13543813 BIOSIS Number: 99543813

Thrombopoietin augments ex **vivo** expansion of human cord blood-derived hematopoietic progenitors in combination with stem cell factor and **flt3 ligand**

Ohmizono Y; Sakabe H; Kimura T; Tanimukai S; Matsumura T; Miyazaki H; Lyman S D; Sonoda Y

Dep. Hygiene, Kyoto Prefectural University Med., Kawaramachi-Hirokoji,
Kamigyoku, Kyoto 602, Japan

Leukemia (Basingstoke) 11 (4). 1997. 524-530.

Full Journal Title: Leukemia (Basingstoke)

ISSN: 0887-6924

Language: ENGLISH

Print Number: Biological Abstracts Vol. 103 Iss. 012 Ref. 167241

We studied the effects of stem cell factor (SCF) and **flt3 ligand** (FL) on the ex vivo expansion of human umbilical cord blood (CB)-derived CD34+ cells in combination with various cytokines, including interleukin (IL)-3, IL-6, IL-11, and c-MpI ligand (thrombopoietin, TPO), in a short-term serum-free liquid suspension culture system. Among the two-factor combinations tested, SCF plus IL-3 most effectively expanded committed progenitor cells, including mixed colony-forming units (CFU-Mix). The expansion efficiency (EE) of FL for each progenitor was inferior to that of SCF in the presence of various cytokines, except TPO. IL-6 significantly increased the EE for granulocyte/macrophage colony-forming units (CFU-GM) obtained with SCF + IL-3 or FL + IL-3. Interestingly, TPO markedly augmented the EE for committed progenitors, including CFU-GM, erythroid burst-forming units (BFU-E), and CFU-Mix, in the presence of SCF + IL-3 or FL + IL-3. The combinations of SCF + IL-3 + TPO + IL-6 or IL-11 maximally **stimulated** the expansion of committed progenitors. The maximum EE for CFU-GM, BFU-E, and CFU-Mix was respectively 197-fold (day 14), 60-fold (day 7) and 51-fold (day 14). Other combinations of cytokines without IL-3 failed to expand effectively these committed progenitors. Our data demonstrate that it is possible to expand human CB-derived committed progenitors in vitro using SCF or FL with several other cytokines including TPO, and that IL-3 is the key cytokine promoting the expansion of human hematopoietic progenitors in the presence of SCF or FL.

4/7/37 (Item 37 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
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11958347 BIOSIS Number: 98558347

Effect of **flt3 ligand** on the ex vivo expansion of human CD34+ hematopoietic progenitor cells

McKenna H J; De Vries P; Brasel K; Lyman S D; Williams D E
Immunex Corp, 51 University St., Seattle, WA 98101, USA
Blood 86 (9). 1995. 3413-3420.

Full Journal Title: Blood

ISSN: 0006-4971

Language: ENGLISH

Print Number: Biological Abstracts Vol. 101 Iss. 001 Ref. 001152

A ligand for the tyrosine kinase receptor flt3/flk-2, referred to here as **flt3 ligand** (flt3L), was recently cloned. The effect of flt3L on purified human CD34+ progenitor cells was examined. flt3 receptor (flt3R) was detected on the surface of human bone marrow cells that were enriched for CD34 expression. The effects of flt3L and the c-kit ligand Steel factor (SLF) on hematopoietic progenitors were compared in clonal colony assays. Both factors synergized with Pixy321 (interleukin-3 (IL-3)-granulocyte-macrophage colony-stimulating factor fusion protein) to induce granulocytic-monocytic (GM) and high proliferative potential (HPP) colonies and synergized with Pixy321 + erythropoietin (EPO) to induce multipotent granulocytic-erythroid-monocytic-megakaryocytic colonies. Although SLF had a potent effect on colony formation of erythroid restricted progenitor cells (burst-forming unit-erythroid), no effect by flt3L was observed. The addition of flt3L to irradiated long-term marrow cultures seeded with CD34+ cells augmented both total and progenitor cell production. Ex vivo expansion studies with isolated CD34+ bone marrow cells from normal donors showed that flt3L alone supported maintenance of both GM and HPP progenitors for 3 to 4 weeks in vitro. The addition of flt3L to a growth factor combination of IL-17a + IL-3 + IL-6 + EPO resulted

in a synergistic effect on progenitor cell expansion comparable to that observed with the addition of SLF to IL1-alpha + IL-3 + IL-6 + EPO. These data show a function for flt3L in the regulation of both primitive multipotent and lineage-committed hematopoietic progenitor cells.

4/7/38 (Item 38 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
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11838556 BIOSIS Number: 98438556

Role of **FLT3 ligand** in the *ex vivo* amplification of
G-CSF-mobilized CD34+CD45RA- hematopoietic progenitors
Carlo-Stella C; Mangoni L; Garau D; Regazzi E; Almici C; Rizzoli V
Bone Marrow Transplantation Unit, Univ. Parma, Parma, Italy
Experimental Hematology (Charlottesville) 23 (8). 1995. 846.
Full Journal Title: 24th Annual Meeting of the International Society for
Experimental Hematology, Duesseldorf, Germany, August 27-31, 1995.
Experimental Hematology (Charlottesville)
ISSN: 0301-472X
Language: ENGLISH
Print Number: Biological Abstracts/RRM Vol. 047 Iss. 010 Ref. 170311

4/7/39 (Item 1 from file: 72)
DIALOG(R)File 72:EMBASE
(c) 1998 Elsevier Science B.V. All rts. reserv.

10701359 EMBASE No: 98139039

Flt 3 ligand, MGDF, epo and G-CSF enhance *ex vivo* expansion of
hematopoietic cell compartments in the presence of SCF, IL-3 and IL-6
Kobari K.; Giaratana M.C.; Poloni A.; Firat H.; Labopin M.; Gorin N.C.;
Douay L.
Prof. L. Douay, Service d'Hematologie Biologique, Hopital Armand
Trousseau, 26 avenue du Docteur Arnold Netter, 75012 Paris France
Bone Marrow Transplantation (United Kingdom) , 1998, 21/8 (759-767)
CODEN: BMTRE ISSN: 0268-3369
DOCUMENT TYPE: Journal Article
LANGUAGES: ENGLISH SUMMARY LANGUAGES: ENGLISH
NUMBER OF REFERENCES: 50

The aim of the study is to define the ability of **Flt3 ligand**,
MGDF, Epo and G-CSF to modulate the expansion of different hematopoietic
compartments in association with a basic cocktail of SCF + IL-3 + IL-6
(S36). CD34+ cells from normal bone marrow were cultured in stroma-free,
serum-free medium for 10 days. Using various concentrations of cytokines,
total cells could be expanded up to 5200-fold, CD34+ cells up to 78-fold,
CFU-GM up to 143-fold, BFU-E up to 46-fold, CFU-MK up to six-fold and
LTC-IC up to four-fold. The results were assessed by multiparametric
analysis of variance. Three factors had a significant **stimulatory**
effect on the late precursor compartment: Epo ($P < 10^{-5}$), G-CSF ($P = 5 \times 10^{-3}$) and FL ($P = 10^{-5}$). Two were critical for CD34+ cell expansion: FL ($P = 4 \times 10^{-5}$) and Epo ($P = 6 \times 10^{-5}$), while two were critical for BFU-E expansion: MGDF ($P = 8 \times 10^{-4}$) and FL ($P = 0.017$). FL strongly
stimulated CFU-GM expansion ($P < 10^{-5}$), whereas none of the growth
factors studied had any effect on CFU-MK. FL ($P = 10^{-4}$) and MGDF ($P = 0.002$) were essential to obtain high levels of expansion of LTC-IC as determined in limiting dilution assays. In the light of the above results showing a preferential effect on the expansion of precursor cells (3080-fold), CD34+ cells (53-fold), CFU-GM (134-fold), BFU-E (46-fold) and LTC-IC (five-fold), the combination SCF, IL-3, IL-6, FL, MGDF, Epo and G-CSF was chosen as a putative cytokine cocktail for further studies on long-term culture. Sustained production of precursor cells, progenitor cells, LTC-IC and E-LTC-IC for up to 100 days reflects the persistence of very primitive stem cells. This suggests that these populations are probably able to undergo self-renewal divisions. The above combination of

cytokines meets the required criterion for potential clinical application, which may be defined as an effective capacity to expand all cell compartments, using as the starting material high concentrations of low purity CD34+ cells.

4/7/42 (Item 4 from file: 72)
 DIALOG(R)File 72:EMBASE
 (c) 1998 Elsevier Science B.V. All rts. reserv.

10229039 EMBASE No: 97032617

The effects of Flk-2/**flt3 ligand** as compared with c-kit ligand on short- term and long-term proliferation of CD34+ hematopoietic progenitors elicited from human fetal liver, umbilical cord blood, bone marrow, and mobilized peripheral blood

Shapiro F.; Pytowski B.; Rafii S.; Witte L.; Hicklin D.J.; Yao T.J.; Moore M.A.S.

Dr. F. Shapiro, Lab. of Developmental Hematology, Gynecology Oncology Service, Memorial Sloan-Kettering Cancer Ctr., 1275 York Avenue, New York, NY 10021 USA

Journal of Hematotherapy (USA) , 1996, 5/6 (655-662)

CODEN: JOEME ISSN: 1061-6128

DOCUMENT TYPE: Journal

LANGUAGES: English SUMMARY LANGUAGES: English

NUMBER OF REFERENCES: 19

The Flk-2/**flt3 ligand** (FL) was evaluated and compared with c-kit ligand (KL) for its in vitro proliferative effects on CD34+ cells from human fetal liver, umbilical cord blood, bone marrow, and mobilized peripheral blood. Using a 7-day liquid culture system, FL in combination with interleukin-3 (IL-3), interleukin-6 (IL-6), and granulocyte colony-stimulating factor (G-CSF) was comparable with KL in combination with IL-3, IL-6, and G-CSF for the expansion of hematopoietic progenitors. When FL-containing cultures were assayed after 21 or 28 days, a greater number of progenitors were generated as compared with KL-containing cultures. Using bone marrow microvascular endothelial cells as support stroma, cultures supplemented with FL generated a greater number of progenitors in both the nonadherent and adherent layers at day 35. These data suggest that FL ligand, in combination with other cytokines, can be used for short-term ex vivo expansion of hematopoietic progenitors and facilitates the preservation and possible expansion of primitive cells capable of long-term generation of progenitors.

? ds

Set	Items	Description
S1	570	(FLT3(W)L OR FLT3(W)LIGAND)
S2	327	S1 AND STIMULAT?
S3	107	S2 AND (VIVO OR PATIENT? OR ADMINISTER?)
S4	60	RD S3 (unique items)

? s s1 and py=1990

	570	S1
	2373119	PY=1990
S5	0	S1 AND PY=1990

? s s1 and py=1991

	570	S1
	2378126	PY=1991
S6	0	S1 AND PY=1991

? s s1 and py=1992

	570	S1
	2482322	PY=1992
S7	0	S1 AND PY=1992

? s s1 and py=1993

570 S1
2472670 PY=1993
S8 1 S1 AND PY=1993
? s s1 and py=1994

570 S1
2515047 PY=1994
S9 29 S1 AND PY=1994
? rd s9

>>>Duplicate detection is not supported for File 351.

>>>Records from unsupported files will be retained in the RD set.
...completed examining records
S10 22 RD S9 (unique items)
? t s8/7/all

8/7/1 (Item 1 from file: 154)
DIALOG(R)File 154:MEDLINE(R)
(c) format only 1998 Dialog Corporation. All rts. reserv.

07804012 94084791
Molecular cloning of a ligand for the flt3/flk-2 tyrosine kinase receptor: a proliferative factor for primitive hematopoietic cells.
Lyman SD; James L; Vanden Bos T; de Vries P; Brasel K; Gliniak B; Hollingsworth LT; Picha KS; McKenna HJ; Splett RR; et al
Immunex Research and Development Corporation, Seattle, Washington 98101.
Cell (UNITED STATES) Dec 17 1993, 75 (6) p1157-67, ISSN 0092-8674 Journal Code: CQ4
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Cloning of a ligand for the murine flt3/flk-2 tyrosine kinase receptor was undertaken using a soluble form of the receptor to identify a source of ligand. A murine T cell line, P7B-0.3A4, was identified that appeared to express a cell surface ligand for this receptor. A cDNA clone was isolated from an expression library prepared from these cells that was capable, when transfected into cells, of conferring binding to a soluble form of the flt3/flk-2 receptor. The cDNA for this ligand encodes a type I transmembrane protein that stimulates the proliferation of cells transfected with the flt3/flk-2 receptor. A soluble form of the ligand stimulates the proliferation of defined subpopulations of murine bone marrow and fetal liver cells as well as human bone marrow cells that are highly enriched for hematopoietic stem cells and primitive uncommitted progenitor cells.
? t s10/7/all

10/7/1 (Item 1 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
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13258867 BIOSIS Number: 99258867
Analysis of the mitogenic pathway of the FLT3 receptor and characterization in its C terminal region of a specific binding site for the PI3' kinase
Casteran N; Rottapel R; Beslu N; Lecocq E; Birnbaum D; Dubreuil P
Mol. Functional Hematol. Lab., Unite 119, INSERM, 27 Bd. Le Roure, 13009 Marseille, France
Cellular and Molecular Biology (Noisy-Le-Grand) 40 (3). 1994. 443-456.
Full Journal Title: Cellular and Molecular Biology (Noisy-Le-Grand)
ISSN: *****
Language: ENGLISH
Print Number: Biological Abstracts Vol. 102 Iss. 012 Ref. 174497

The FLT3 receptor tyrosine kinase (RTK) belongs to the class III subfamily which includes PDGF, CSF1 and SLF receptors. The recent cloning of the **FLT3 ligand** suggesting its important role in the differentiation and proliferation of the hematopoietic stem cells, has confirmed the initial expression analysis showing restricted pattern of receptor expression within the primitive hematopoietic population. To better understand the function of the FLT3 receptor and its relationship with the other hematopoietic RTKs, we analyzed the mitogenic pathway and substrate specificity of this receptor. The construction of a chimeric receptor called FF3, between the extracellular region of the CSF1 receptor fused with the transmembrane and the cytoplasmic regions of FLT3, has allowed an analysis in the absence of **FLT3 ligand**. We have shown in previous studies that FF3 is able to transduce the signal induced by CSF1, to induce tyrosine phosphorylation and/or association of several cytoplasmic proteins. We show here that this new receptor is fully functional in Ba/F3 hematopoietic cells, inducing a CSF1 dependence when expressed at the surface of this IL3 dependent cell line. The PI3'Kinase interacts with the FF3 receptor through SH2 domains and its binding site is localized on the tyrosine residue 958 in the C terminal part of the receptor.

10/7/2 (Item 2 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

11470683 BIOSIS Number: 98070683

FLT3 ligand (FL) supports proliferation of lymphohemopoietic and early B-lymphoid progenitors

Hirayama F; Lyman S D; Clark S C; Ogawa M
Dep. Med., Med. Univ. S.C., Charleston, SC, USA
Blood 84 (10 SUPPL. 1). 1994. 512A.

Full Journal Title: Abstracts Submitted to the 36th Annual Meeting of the American Society of Hematology, Nashville, Tennessee, USA, December 2-6, 1994. Blood

ISSN: 0006-4971

Language: ENGLISH

Print Number: Biological Abstracts/RRM Vol. 047 Iss. 002 Ref. 032270

10/7/3 (Item 3 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

11469751 BIOSIS Number: 98069751

The role of **FLT3 ligand** in early murine hematopoiesis

De Vries P; Brasel K A; McKenna H J; Williams D E; Lyman S D
Immunex Corp., Seattle, WA, USA
Blood 84 (10 SUPPL. 1). 1994. 279A.

Full Journal Title: Abstracts Submitted to the 36th Annual Meeting of the American Society of Hematology, Nashville, Tennessee, USA, December 2-6, 1994. Blood

ISSN: 0006-4971

Language: ENGLISH

Print Number: Biological Abstracts/RRM Vol. 047 Iss. 002 Ref. 031338

10/7/4 (Item 4 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

11469712 BIOSIS Number: 98069712

Modulation of hematopoietic progenitor development by recombinant human **FLT3 ligand**

Banu N; Deng B; Lyman S; Groopman J E; Avraham H

Div. Hematol./Oncol., Deacones Hosp., Harvard Med. Sch., Boston, MA, USA
Blood 84 (10 SUPPL. 1). 1994. 269A.
Full Journal Title: Abstracts Submitted to the 36th Annual Meeting of
the American Society of Hematology, Nashville, Tennessee, USA, December
2-6, 1994. Blood
ISSN: 0006-4971
Language: ENGLISH
Print Number: Biological Abstracts/RRM Vol. 047 Iss. 002 Ref. 031299

10/7/5 (Item 5 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
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11469520 BIOSIS Number: 98069520
Autocrine inhibition by TGF-beta-1 suppresses **FLT3 ligand**
(FLT3L) and stem cell factor (SCF) stimulated growth: Evidence for
TGF-beta-1 gene expression in hematopoietic cells
Zhu X L; Novak F P; Heinrich M; Oppenlander B K; Dooley D C
American Red Cross, Pacific Northwest Regional Blood Serv., Portland, OR,
USA
Blood 84 (10 SUPPL. 1). 1994. 221A.
Full Journal Title: Abstracts Submitted to the 36th Annual Meeting of
the American Society of Hematology, Nashville, Tennessee, USA, December
2-6, 1994. Blood
ISSN: 0006-4971
Language: ENGLISH
Print Number: Biological Abstracts/RRM Vol. 047 Iss. 002 Ref. 031107

10/7/6 (Item 6 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

11469147 BIOSIS Number: 98069147
The stimulatory-costimulatory effects of **FLT3-ligand** on human
myeloid leukemia cells
Piacibello W; Fubini L; Severino A; Sanavio F; Garetto L; Stacchini A;
Lyman S; Aglietta M
Dep. Biomedical Sci., Human Oncol., University Turin, Turin, Italy
Blood 84 (10 SUPPL. 1). 1994. 127A.
Full Journal Title: Abstracts Submitted to the 36th Annual Meeting of
the American Society of Hematology, Nashville, Tennessee, USA, December
2-6, 1994. Blood
ISSN: 0006-4971
Language: ENGLISH
Print Number: Biological Abstracts/RRM Vol. 047 Iss. 002 Ref. 030734

10/7/7 (Item 7 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

11469146 BIOSIS Number: 98069146
Expression of FLT3 and **FLT3-ligand** in a panel of human
leukemia-lymphoma cell lines
Meierhoff G; Dirks W; Gruss H J; Hu Z B; Rosnet O; Birnbaum D; Drexler H
G
DSM-German Collection Microorganisms Cell Cultures, Dep. Human Animal
Cell Cultures, Braunschweig, Germany
Blood 84 (10 SUPPL. 1). 1994. 127A.
Full Journal Title: Abstracts Submitted to the 36th Annual Meeting of
the American Society of Hematology, Nashville, Tennessee, USA, December
2-6, 1994. Blood
ISSN: 0006-4971

10/7/8 (Item 8 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
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11468848 BIOSIS Number: 98068848
The effect of **FLT3 ligand** on primary acute human leukemias
McKenna H J; Smith F O; De Vries P; Brasel K; Lyman S D; Williams D E
Immunex Corp., Seattle, WA, USA
Blood 84 (10 SUPPL. 1). 1994. 52A.
Full Journal Title: Abstracts Submitted to the 36th Annual Meeting of
the American Society of Hematology, Nashville, Tennessee, USA, December
2-6, 1994. Blood
ISSN: 0006-4971
Language: ENGLISH
Print Number: Biological Abstracts/RRM Vol. 047 Iss. 002 Ref. 030435

10/7/9 (Item 9 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
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11281542 BIOSIS Number: 97481542
The biological effects of **FLT3 ligand** on CD34 positive
progenitor cells isolated from human bone marrow and cord blood
McKenna H J; Lyman S D; De Vries P; Brasel K A; Beckmann M P; Williams D
E
Immunex Corp, Seattle, WA, USA
Experimental Hematology (Charlottesville) 22 (8). 1994. 763.
Full Journal Title: 23rd Annual Meeting of the International Society for
Experimental Hematology, Minneapolis, Minnesota, USA, August 21-25, 1994.
Experimental Hematology (Charlottesville)
ISSN: 0301-472X
Language: ENGLISH
Print Number: Biological Abstracts/RRM Vol. 046 Iss. 011 Ref. 179405

10/7/10 (Item 10 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

11281504 BIOSIS Number: 97481504
Alternative splicing of murine and human **FLT3 ligand** mRNAs
regulates production of cell bound and soluble forms of the protein
Lyman S D; James L; Escobar S S; Brasel K; Downey H; Stocking K; Davison
B; Beckmann M P; De Vries P
Immunex Res. Dev. Corp., Seattle, WA, USA
Experimental Hematology (Charlottesville) 22 (8). 1994. 753.
Full Journal Title: 23rd Annual Meeting of the International Society for
Experimental Hematology, Minneapolis, Minnesota, USA, August 21-25, 1994.
Experimental Hematology (Charlottesville)
ISSN: 0301-472X
Language: ENGLISH
Print Number: Biological Abstracts/RRM Vol. 046 Iss. 011 Ref. 179367

10/7/11 (Item 11 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
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11281440 BIOSIS Number: 97481440
Recombinant **flt3 ligand** enhances hematopoiesis in myeloid and

B-lymphoid long-term bone marrow cultures
Brasel K; Rousseau A M; De Vries P; Lyman S D; Williams D E
Immunex Res. Dev. Corp., Seattle, WA, USA
Experimental Hematology (Charlottesville) 22 (8). 1994. 736.
Full Journal Title: 23rd Annual Meeting of the International Society for
Experimental Hematology, Minneapolis, Minnesota, USA, August 21-25, 1994.
Experimental Hematology (Charlottesville)
ISSN: 0301-472X
Language: ENGLISH
Print Number: Biological Abstracts/RRM Vol. 046 Iss. 011 Ref. 179303

10/7/12 (Item 12 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

11281400 BIOSIS Number: 97481400
FLT3 ligand stimulation of distinct hematopoietic cell
populations isolated from murine fetal liver
Gliniak B C; Foxworthe D; De Vries P; Brasel K A; Hirschstein D; Beckmann
M P; Williams D E; Lyman S D
Immunex Res. Dev. Corp., Seattle, WA, USA
Experimental Hematology (Charlottesville) 22 (8). 1994. 725.
Full Journal Title: 23rd Annual Meeting of the International Society for
Experimental Hematology, Minneapolis, Minnesota, USA, August 21-25, 1994.
Experimental Hematology (Charlottesville)
ISSN: 0301-472X
Language: ENGLISH
Print Number: Biological Abstracts/RRM Vol. 046 Iss. 011 Ref. 179263

10/7/13 (Item 13 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

11281396 BIOSIS Number: 97481396
The effects of soluble **FLT3 ligand** on murine pluripotent
hematopoietic stem cells
De Vries P; Brasel K A; McKenna H J; Beckmann M P; Gliniak B C; Williams
D E; Lyman S D
Immunex Corp., Seattle, WA, USA
Experimental Hematology (Charlottesville) 22 (8). 1994. 724.
Full Journal Title: 23rd Annual Meeting of the International Society for
Experimental Hematology, Minneapolis, Minnesota, USA, August 21-25, 1994.
Experimental Hematology (Charlottesville)
ISSN: 0301-472X
Language: ENGLISH
Print Number: Biological Abstracts/RRM Vol. 046 Iss. 011 Ref. 179259

10/7/14 (Item 14 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)
(c) 1998 BIOSIS. All rts. reserv.

11281381 BIOSIS Number: 97481381
The effect of **FLT3 ligand** on the growth of myeloid and
lymphoid progenitor cells
Hunte B; Hudak S; Menon S; Hannum C; Lee F; Campbell D; Culpepper J;
Rennick D
DNAX Res. Inst. Molecular Cellular Biology, Palo Alto, CA, USA
Experimental Hematology (Charlottesville) 22 (8). 1994. 720.
Full Journal Title: 23rd Annual Meeting of the International Society for
Experimental Hematology, Minneapolis, Minnesota, USA, August 21-25, 1994.
Experimental Hematology (Charlottesville)
ISSN: 0301-472X

10/7/15 (Item 15 from file: 55)
 DIALOG(R)File 55:BIOSIS PREVIEWS(R)
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11113619 BIOSIS Number: 97313619

Cloning of the human homologue of the murine **flt3 ligand**: A growth factor for early hematopoietic progenitor cells

Lyman S D; James L; Johnson L; Brasel K; De Vries P; Escobar S S; Downey H; Splett R R; Beckmann M P; McKenna H J

Dep. Mol. Genetics, Immunex Res. and Dev. Corp., 51 University St., Seattle, WA 98101, USA

Blood 83 (10). 1994. 2795-2801.

Full Journal Title: Blood

ISSN: 0006-4971

Language: ENGLISH

Print Number: Biological Abstracts Vol. 098 Iss. 002 Ref. 020131

Using a fragment of the murine **flt3 ligand** as a probe, we have succeeded in cloning a human **flt3 ligand** from a human T-cell lambda-gt10 cDNA library. The human and murine ligands are 72% identical at the amino acid level. Analysis of multiple cDNA clones shows that alternative splicing of the human **flt3** mRNA can occur at a number of positions. A recombinant soluble form of the human **flt3 ligand** stimulates the proliferation and colony formation of a subpopulation of human bone marrow cells that are CD34+ and are enriched for primitive hematopoietic cells. In addition, the human **flt3 ligand** also stimulates the proliferation of cells expressing murine **flt3** receptors. Northern blot analysis shows widespread expression of **flt3 ligand** mRNA transcripts in human tissues.

10/7/16 (Item 16 from file: 55)
 DIALOG(R)File 55:BIOSIS PREVIEWS(R)
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10962399 BIOSIS Number: 97162399

The effect of the **FLT3 ligand** on purified murine pluripotent hematopoietic stem cells

De Vries P; Brasel K A; Vanden Bos T; James L; Beckman M P; McKenna H J; Gliniak B C; Hollingworth L T; Picha K S; et al

Immunex Res. and Dev. Corp., Seattle, WA 98101, USA

Journal of Cellular Biochemistry Supplement 0 (18B). 1994. 177.

Full Journal Title: Keystone Symposium on Stem Cells, Taos, New Mexico, USA, January 31-February 7, 1994. Journal of Cellular Biochemistry Supplement

ISSN: 0733-1959

Language: ENGLISH

Print Number: Biological Abstracts/RRM Vol. 046 Iss. 004 Ref. 059000

10/7/17 (Item 1 from file: 72)
 DIALOG(R)File 72:EMBASE
 (c) 1998 Elsevier Science B.V. All rts. reserv.

9464984 EMBASE No: 95023500

Commentary: A rapid proliferation assay for unknown co-stimulating factors in cord blood plasma possibly involved in enhancement of in vitro expansion and replating capacity of human hematopoietic stem/progenitor cells

Broxmeyer H.E.; Benninger L.; Yip-Schneider M.; Braun S.E.

Walther Oncology Center, Indiana University Sch. of Medicine, 975 West Walnut Street, Indianapolis, IN 46202-5121 USA

BLOOD CELLS (CELLS) , 1994, 20/2-3 (492-497)
CODEN: BLCEJ ISSN: 0340-4684
LANGUAGES: English

10/7/18 (Item 2 from file: 72)
DIALOG(R) File 72:EMBASE
(c) 1998 Elsevier Science B.V. All rts. reserv.

9452481 EMBASE No: 95012992

TNF-alpha, the great imitator: Role of p55 and p75 TNF receptors in hematopoiesis

Jacobsen S.E.W.; Jacobsen F.W.; Fahlman C.; Rusten L.S.
Department of Immunology, Institute for Cancer Research, Norwegian Radium Hospital, Oslo Norway

STEM CELLS (USA) , 1994, 12/SUPPL. (111-126)

CODEN: STCEE ISSN: 1066-5099

LANGUAGES: English SUMMARY LANGUAGES: English

The clinical application of tumor necrosis factor-alpha (TNF-alpha) has so far been limited due to the severe adverse effects associated with its systemic use. Recently, two distinct TNF receptors with molecular weights of 55 kDa (TNFR55) and 75 kDa (TNFR75) have been cloned and characterized. The subsequent development of TNF-alpha mutants with selective activity on either TNFR55 or TNFR75 suggest that such mutants might maintain the therapeutic (anti-tumor) potential of wild type TNF-alpha, but exhibit reduced toxicity (proinflammatory effects). In the present article we discuss previous studies on the effects of TNF-alpha in vitro and in vivo hematopoiesis. In addition, we summarize more recent data from our laboratory as well as others, elucidating the role of TNF-alpha as a direct bifunctional regulator of in vitro hematopoiesis. Specifically, TNF-alpha is a potent inhibitor of the clonal growth of primitive and committed murine and human bone marrow progenitors in combination with multiple cytokines, including granulocyte colony-stimulating factor (G-CSF), CSF-1, erythropoietin (Epo), stem cell factor (SCF), and **flt3 ligand** (FL). In contrast, TNF-alpha at low concentrations can synergistically and directly enhance the clonal growth of primitive and more mature human CD34+ bone marrow progenitors when combined with GM-CSF or interleukin (IL)-3. Thus, a critical determinant of whether TNF-alpha elicits a stimulatory or inhibitory effect on the in vitro growth of hematopoietic progenitors appears to be the specific growth factors with which it interacts, rather than the maturity of the targeted progenitor. Furthermore, we describe the involvement of the two TNF receptors in signaling in vitro hematopoietic effects of TNF-alpha. Whereas TNFR55 is involved in most observed responses to TNF-alpha, signaling of TNFR75 appears to be restricted to inhibitory effects on primitive progenitors. Finally, we discuss the complexity of direct and indirect actions of TNF-alpha in in vivo hematopoiesis, and the potential clinical applications of TNF-alpha or TNF mutants.

10/7/19 (Item 3 from file: 72)
DIALOG(R) File 72:EMBASE
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9452480 EMBASE No: 95012991

The **flt3 ligand**: A hematopoietic stem cell factor whose activities are distinct from Steel factor

Lyman S.D.; Brasel K.; Rousseau A.-M.; Williams D.E.
Immunex Research/Development Corp., Seattle, WA USA
STEM CELLS (USA) , 1994, 12/SUPPL. (99-107)

CODEN: STCEE ISSN: 1066-5099

LANGUAGES: English SUMMARY LANGUAGES: English

A number of growth factors have been described that affect the hematopoietic system. Among this group are Steel factor (also known as mast cell growth factor, stem cell factor and kit ligand), and the more recently described **flt3 ligand**. These factors have been shown to

function by binding to activating the c-kit and flt3 tyrosine kinase receptors, respectively. Both of these factors stimulate the growth of mouse and human hematopoietic progenitor cells. These factors therefore differ from such later acting hematopoietic factors as colony-stimulating factor (CSF)-1, which regulates the growth, survival and differentiation of monocytic cells through the c-fms tyrosine kinase receptor. Like Steel factor, the flt ligand has little biological activity on its own, but synergizes well with a number of other colony stimulating factors and interleukins. One major difference between the two factors appears to be their effect on mast cells. Steel factor stimulates both the proliferation and activation of mast cells, while preliminary data with the **flt3 ligand** suggests that it has no effect on mast cells. Although the **flt3 ligand** and Steel factor each act on early hematopoietic cells, differences in their activities suggest that they are not redundant and are both required for normal hematopoiesis.

10/7/20 (Item 1 from file: 154)
DIALOG(R) File 154: MEDLINE(R)
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07886034 94195428

Ligand for FLT3/FLK2 receptor tyrosine kinase regulates growth of haematopoietic stem cells and is encoded by variant RNAs.

Hannum C; Culpepper J; Campbell D; McClanahan T; Zurawski S; Bazan JF; Kastelein R; Hudak S; Wagner J; Mattson J; et al

DNAX Research Institute of Molecular and Cellular Biology, Palo Alto, California 94304-1104.

Nature (ENGLAND) Apr 14 1994, 368 (6472) p643-8, ISSN 0028-0836
Journal Code: NSC

Languages: ENGLISH

Document type: JOURNAL ARTICLE

The FLT3/FLK2 receptor tyrosine kinase is closely related to two receptors, c-Kit and c-Fms, which function with their respective ligands, Kit ligand and macrophage colony-stimulating factor to control differentiation of haematopoietic and non-haematopoietic cells. FLT3/FLK2 is thought to be present on haematopoietic stem cells and found in brain, placenta and testis. We have purified to homogeneity and partially sequenced a soluble form of the FLT3/FLK2 ligand produced by mouse thymic stromal cells. We isolated several mouse and human complementary DNAs that encode polypeptides with identical N termini and different C termini. Some variants contain hydrophobic transmembrane segments, suggesting that processing may be required to release soluble ligand. The purified ligand enhances the response of mouse stem cells and a primitive human progenitor cell population to other growth factors such as interleukins IL-3 and IL-6 and to granulocyte-macrophage colony-stimulating factor, and also stimulates fetal thymocytes.

10/7/21 (Item 1 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 1998 American Chemical Society. All rts. reserv.

122207009 CA: 122(17)207009t PATENT

Flt3 receptor ligand (flt3-L), cloning and expression of cDNA for flt3-L, and use of flt3-L to influence hematopoietic or stem cells

INVENTOR(AUTHOR): Lyman, Stewart D.; Beckmann, M. Patricia

LOCATION: USA

ASSIGNEE: Immunex Corp.

PATENT: European Pat. Appl. ; EP 627487 A2 DATE: 941207

APPLICATION: EP 94303575 (940519) *US 68394 (930524) *US 106463 (930812)

*US 111758 (930825) *US 162407 (931203) *US 209502 (940307) *US 243545 (940511)

PAGES: 33 pp. CODEN: EPXXDW LANGUAGE: English CLASS: C12N-015/00A

DESIGNATED COUNTRIES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU;

MC; NL; PT; SE

SECTION:

CA203002 Biochemical Genetics

CA201XXX Pharmacology

CA215XXX Immunochestistry

IDENTIFIERS: flt3 receptor ligand cDNA human sequence, hematopoiesis
stimulation flt3 receptor ligand

DESCRIPTORS:

Gene, animal...

cDNA; flt3 receptor ligand (flt3-L), cloning and expression of cDNA for
flt3-L, and use of flt3-L to influence hematopoietic or stem cells

Hematopoietic precursor cell...

engraftment of; flt3 receptor ligand (flt3-L), cloning and expression
of cDNA for flt3-L, and use of flt3-L to influence hematopoietic or
stem cells

Deoxyribonucleic acid sequences, complementary...

for flt3 receptor ligands of mouse and human

Protein sequences...

of flt3 receptor ligands of mouse and human

Lymphocyte, T-cell...

stimulation of proliferation of; flt3 receptor ligand (flt3-L), cloning
and expression of cDNA for flt3-L, and use of flt3-L to influence
hematopoietic or stem cells

Antibodies... Antibodies, monoclonal...

to flt3 receptor ligands of mouse and human

Mammal...

transgenic non-human mammal contg. flt3 receptor ligand cDNA in germ
and somatic cells

Acquired immune deficiency syndrome... Anemia(disease)...

Myeloproliferative disorder, myelodysplastic syndrome...

treatment of; flt3 receptor ligand (flt3-L), cloning and expression of
cDNA for flt3-L, and use of flt3-L to influence hematopoietic or stem
cells

CAS REGISTRY NUMBERS:

153132-93-5 159964-80-4 161818-46-8 161818-47-9 amino acid sequence;

flt3 receptor ligand (flt3-L), cloning and expression of cDNA for
flt3-L, and use of flt3-L to influence hematopoietic or stem cells

147230-71-5 flt3 receptor ligand (flt3-L), cloning and expression of cDNA
for flt3-L, and use of flt3-L to influence hematopoietic or stem cells

161818-44-6 161818-45-7 nucleotide sequence; flt3 receptor ligand
(flt3-L), cloning and expression of cDNA for flt3-L, and use of flt3-L
to influence hematopoietic or stem cells

10/7/22 (Item 1 from file: 351)

DIALOG(R) File 351: DERWENT WPI

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010106818

WPI Acc No: 95-008071/199502

Isolated ligands for flt 3 receptors - useful for treating anaemia, AIDS
and various cancers

Patent Assignee: IMMUNEX CORP (IMMV)

Inventor: BECKMANN M P; LYMAN S D

Number of Countries: 052 Number of Patents: 018

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Main IPC	Week
EP 627487	A2	19941207	EP 94303575	A	19940519	C12N-015/00	199502 B
WO 9428391	A1	19941208	WO 94U55365	A	19940512	G01N-001/34	199503
AU 9469877	A	19941220	AU 9469877	A	19940512	G01N-001/34	199512
			WO 94U55365	A	19940512		
ZA 9403490	A	19950329	ZA 943490	A	19940520	A61K-000/00	199519
AU 9520982	A	19950925	AU 9520982	A	19950307		199601
NO 9504735	A	19960123	WO 94U55365	A	19940512	C07K-014/475	199612
			NO 954735	A	19951123		

FI	9505646	A	19960123	WO	94US5365	A	19940512	C07K-000/00	199615
				FI	955646	A	19951123		
BR	9407073	A	19960827	BR	947073	A	19940512	G01N-001/34	199641
				WO	94US5365	A	19940512		
EP	627487	A3	19960821	EP	94303575	A	19940519	C12N-015/00	199641
US	5554512	A	19960910	US	9368394	A	19930524	C12N-015/19	199642
				US	93106463	A	19930812		
				US	93111758	A	19930825		
				US	93162407	A	19931203		
				US	94209502	A	19940307		
				US	94243545	A	19940511		
FI	9603373	A	19960829	WO	95US2886	A	19950307	C12N-000/00	199646
				FI	963373	A	19960829		
CZ	9503079	A3	19961016	CZ	953079	A	19940512	C07K-014/435	199648
JP	8511251	W	19961126	WO	94US5365	A	19940512	C07K-014/705	199708
				JP	95500715	A	19940512		
NZ	267541	A	19970624	NZ	267541	A	19940512	C07K-014/475	199732
				WO	94US5365	A	19940512		
CN	1125479	A	19960626	CN	94192225	A	19940512	G01N-001/34	199748
HU	74831	T	19970228	WO	94US5365	A	19940512	G01N-001/34	199748
				HU	953341	A	19940512		
AU	683472	B	19971113	AU	9469877	A	19940512	G01N-001/34	199803
KR	97701260	A	19970317	WO	95US2886	A	19950307	C12N-005/08	199813
				KR	96704751	A	19960829		

Priority Applications (No Type Date): US 94243545 A 19940511; US 9368394 A 19930524; US 93106463 A 19930812; US 93111758 A 19930825; US 93162407 A 19931203; US 94209502 A 19940307; US 95399404 A 19950306
Cited Patents: 3.Jnl.Ref; WO 9426891; WO 9428391; US 4745009; US 5013824; US 5057420; US 5114710; US 5185438; US 5192553; US 5199942

Patent Details:

Patent	Kind	Lan	Pg	Filing	Notes	Application	Patent
EP 627487	A2	E	33				
Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE							
WO 9428391	A1	E	60				
Designated States (National): AT AU BB BG BR BY CA CH CN CZ DE DK ES FI GB HU JP KP KR KZ LK LU LV MG MN MW NL NO NZ PL PT RO RU SD SE SK UA UZ VN							
Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL OA PT SE							
AU 9469877	A			Based on		WO 9428391	
ZA 9403490	A		60				
AU 9520982	A					EP 627487	
				Based on		WO 9524469	
BR 9407073	A			Based on		WO 9428391	
US 5554512	A		22	CIP of	US 9368394		
				CIP of	US 93106463		
				CIP of	US 93111758		
				CIP of	US 93162407		
				CIP of	US 94209502		
JP 8511251	W		74	Based on		WO 9428391	
NZ 267541	A			Based on		WO 9428391	
HU 74831	T			Based on		WO 9428391	
AU 683472	B			Previous Publ.		AU 9469877	
				Based on		WO 9428391	
KR 97701260	A			Based on		WO 9524469	

Abstract (Basic): EP 627487 A

An isolated flt 3-ligand (flt 3-L) polypeptide (I) is new. Also claimed are (1) a DNA sequence encoding (I), (2) an expression vector encoding the comprising the DNA of (1), (3) a host cell transfected with the expression vector of (2), (4) production of the flt3-L by culture of the host cell of (3) and retrieval of flt3-L from the culture supernatant, (5) an antibody that is

immunoreactive with (I), (6) a haematopoietic cell expansion media comprising cell growth media and a **flt3-L** polypeptide, (7) a method of transfecting an exogenous gene into an early haematopoietic cell comprising (a) culturing the cells in media comprising an effective amount of **flt3-L** polypeptide; and (b) transfecting the cultured cells from step (a) with the gene, (8) a transgenic non-human animal all of whose germ cells and somatic cells at an embryonic stage contain the DNA of (I) or an ancestor of the transgenic animal; and (9) a method of sepg. cells with surface flt 3 receptors from a mixt. of cells in suspension by contacting the cells in the mixt. with a contacting surface having a flt3-binding protein (pref. (I), and sepg. the contacting surface and the suspension.

USE - (I) can be used in gene therapy and in the treatment of myelodysplastic syndrome, a plastic anaemia, HIV infection (AIDS), and cancers, such as breast cancer, lymphoma, acute leukaemia, testicular tumours and ovarian cancer. Other applicns. of (I) include to expand progenitor or stem cells collected from umbilical cord blood, and to stimulate prodn. of erythroid cells in vivo for treatment of anaemia esp. in AIDS patients receiving AZT therapy. The above treatments are pref. in conjunction with cytokines. A progenitor or stem cell expansion media is provided comprising (I) opt. in combination with a cytokine growth factor selected from CSF-1, GM-CSF, SF, G-CSF, EPO, IL-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, IL-13, IL-14, IL-15, GM-CSF/IL-3 fusion proteins, LIF and FGF and sequential or concurrent combinations of these.

Dwg.0/0

Abstract (Equivalent): US 5554512 A

An isolated DNA sequence encoding a **flt3 ligand** (flt-3-L) polypeptide, said DNA selected from the group consisting of:

(a) the coding region of the **flt3-L** gene;

(b) cDNA sequences that encode a polypeptide having the amino acid sequence selected from the group consisting of amino acids 28 to Xaa of the 231 amino acid sequence given in the specification, and amino acids 28 to Yaa of the 235 residue sequence given in the specification, wherein Xaa is an amino acid from 163 to 231, and Yaa is an amino acid from 160 to 235;

(c) DNA sequences that hybridize under moderately stringent conditions to the DNA of (a) or (b), and which DNA sequences encode a polypeptide that binds to flt3 and which is at least 80% identical to a polypeptide encoded by the DNA of (a) or (b); and

(d) DNA sequences that, due to the degeneracy of the genetic code, encode **flt3-L** polypeptides having the amino acid sequence of the polypeptides encoded by the DNA sequences of (a), (b) or (c).

(Dwg.0/0)

Derwent Class: B04; D16; P14

International Patent Class (Main): A61K-000/00; C07K-000/00; C07K-014/435; C07K-014/475; C07K-014/705; C12N-000/00; C12N-005/08; C12N-015/00; C12N-015/19; G01N-001/34

International Patent Class (Additional): A01K-067/00; A01K-067/027; A61K-037/02; A61K-038/00; A61K-038/17; A61K-038/19; A61K-038/22; A61K-048/00; C07H-021/04; C07K-001/00; C07K-013/00; C07K-014/00; C07K-014/46; C07K-014/47; C07K-015/28; C07K-016/00; C07K-016/22; C07K-016/28; C12N-001/19; C12N-001/21; C12N-005/00; C12N-005/10; C12N-015/09; C12N-015/12; C12N-015/64; C12P-021/02; C12P-021/08; G01N-033/48; G01N-033/53; G01N-033/577

[illegible]

E#	FILE	FREQUENCY	TERM
E1	USPAT	1	LYMAN, STEVEN P/IN
E2	USPAT	4	LYMAN, STEWART/IN
E3	USPAT	0 -->	LYMAN, STEWART ?/IN
E4	USPAT	1	LYMAN, STEWART D/IN
E5	USPAT	1	LYMAN, SUSAN P/IN
E6	USPAT	1	LYMAN, THOMAS G JR/IN
E7	USPAT	2	LYMAN, TOMMY L/IN
E8	USPAT	4	LYMAN, WALTER G/IN
E9	USPAT	1	LYMAR, WASYL/IN
E10	USPAT	1	LYMBERIS, DIMITRIOS/IN
E11	USPAT	1	LYMBERIS, VLASIOS/IN
E12	USPAT	1	LYMBEROPOULOS, STRAVROS/IN

=> s d2

L1 36871 D2

=> s d2

L2 36871 D2

=> s e2,e4

4 "LYMAN, STEWART"/IN
 1 "LYMAN, STEWART D"/IN
 L3 5 ("LYMAN, STEWART"/IN OR "LYMAN, STEWART D"/IN)

=> d l3 1-5

1. 5,728,813, Mar. 17, 1998, Antibodies directed against elk ligand; **Stewart Lyman**, et al., 530/387.9; 424/139.1; 530/388.23 [IMAGE AVAILABLE]

2. 5,670,625, Sep. 23, 1997, Elk ligand fusion proteins; **Stewart Lyman**, et al., 530/387.3; 424/85.1, 192.1; 435/69.7, 172.3; 530/351; 536/23.4; 930/140; 935/10 [IMAGE AVAILABLE]

3. 5,627,267, May 6, 1997, Cytokine designated elk ligand; **Stewart Lyman**, et al., 530/351; 424/85.1; 435/69.5; 536/23.5; 930/140; 935/9 [IMAGE AVAILABLE]

4. 5,554,512, Sep. 10, 1996, Ligands for flt3 receptors; **Stewart D. Lyman**, et al., 435/69.5; 424/85.1; 435/69.1, 172.1, 252.3, 320.1, 365; 530/351, 399; 536/23.5; 935/13 [IMAGE AVAILABLE]

5. 5,512,457, Apr. 30, 1996, Cytokine designated elk ligand; **Stewart Lyman**, et al., 435/69.5; 424/85.1; 435/172.1, 320.1; 530/351; 536/23.5, 24.31; 930/140; 935/9 [IMAGE AVAILABLE]

=> s flt3(w)L

12 FLT3
 525606 L
 L4 1 FLT3(W)L

=> d l4 1

1. 5,554,512, Sep. 10, 1996, Ligands for flt3 receptors; **Stewart D. Lyman**, et al., 435/69.5; 424/85.1; 435/69.1, 172.1, 252.3, 320.1, 365; 530/351, 399; 536/23.5; 935/13 [IMAGE AVAILABLE]

1. 5,728,813, Mar. 17, 1998, Antibodies directed against elk ligand; **Stewart Lyman**, et al., 530/387.9; 424/139.1; 530/388.23 [IMAGE AVAILABLE]
2. 5,670,625, Sep. 23, 1997, Elk ligand fusion proteins; **Stewart Lyman**, et al., 530/387.3; 424/85.1, 192.1; 435/69.7, 172.3; 530/351; 536/23.4; 930/140; 935/10 [IMAGE AVAILABLE]
3. 5,627,267, May 6, 1997, Cytokine designated elk ligand; **Stewart Lyman**, et al., 530/351; 424/85.1; 435/69.5; 536/23.5; 930/140; 935/9 [IMAGE AVAILABLE]
4. 5,554,512, Sep. 10, 1996, Ligands for flt3 receptors; **Stewart D. Lyman**, et al., 435/69.5; 424/85.1; 435/69.1, 172.1, 252.3, 320.1, 365; 530/351, 399; 536/23.5; 935/13 [IMAGE AVAILABLE]
5. 5,512,457, Apr. 30, 1996, Cytokine designated elk ligand; **Stewart Lyman**, et al., 435/69.5; 424/85.1; 435/172.1, 320.1; 530/351; 536/23.5, 24.31; 930/140; 935/9 [IMAGE AVAILABLE]

=> s flt3(w)ligand? or flt(w)3(w)ligand?

```

      12 FLT3
      22711 LIGAND?
      2 FLT3(W) LIGAND?
      390 FLT
      2267171 3
      22711 LIGAND?
      1 FLT(W)3(W) LIGAND?
L2      3 FLT3(W) LIGAND? OR FLT(W)3(W) LIGAND?

```

=> d 12 1-3

1. 5,635,388, Jun. 3, 1997, Agonist antibodies against the flk2/flt3 receptor and uses thereof; Brian D. Bennett, et al., 435/334; 424/85.1, 85.2, 85.5; 435/70.21, 172.2, 320.1, 328; 530/351, 387.3, 388.22, 389.1; 536/23.53 [IMAGE AVAILABLE]
2. 5,554,512, Sep. 10, 1996, Ligands for flt3 receptors; Stewart D. Lyman, et al., 435/69.5; 424/85.1; 435/69.1, 172.1, 252.3, 320.1, 365; 530/351, 399; 536/23.5; 935/13 [IMAGE AVAILABLE]
3. 5,525,708, Jun. 11, 1996, Covalent dimer of kit ligand; Karl H. Nocka, et al., 530/409, 351, 399, 417 [IMAGE AVAILABLE]

=> d 12 1-3 date

L2: 1 of 3

TITLE:	Agonist antibodies against the flk2/flt3 receptor and uses thereof		
US PAT NO:	5,635,388	DATE ISSUED:	Jun. 3, 1997
	[IMAGE AVAILABLE]		
APPL-NO:	08/222,299	DATE FILED:	Apr. 4, 1994

L2: 2 of 3

TITLE:	Ligands for flt3 receptors		
US PAT NO:	5,554,512	DATE ISSUED:	Sep. 10, 1996
	[IMAGE AVAILABLE]		
APPL-NO:	08/243,545	DATE FILED:	May 11, 1994
REL-US-DATA:	Continuation-in-part of Ser. No. 209,502, Mar. 7, 1994, abandoned, which is a continuation-in-part of Ser. No.		

162,407, Dec. 3, 1993, abandoned, which is a continuation-in-part of Ser. No. 111,758, Aug. 25, 1993, abandoned, which is a continuation-in-part of Ser. No. 106,463, Aug. 12, 1993, abandoned, which is a continuation-in-part of Ser. No. 68,394, May 24, 1993, abandoned.

L2: 3 of 3

TITLE:	Covalent dimer of kit ligand		
US PAT NO:	5,525,708	DATE ISSUED:	Jun. 11, 1996
	[IMAGE AVAILABLE]		
APPL-NO:	08/220,379	DATE FILED:	Mar. 28, 1994